

For Reference


NOT TO BE TAKEN FROM THIS ROOM

For Reference

NOT TO BE TAKEN FROM THIS ROOM

Ex LIBRIS
UNIVERSITATIS
ALBERTAENSIS





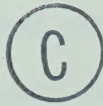
Digitized by the Internet Archive
in 2022 with funding from
University of Alberta Libraries

<https://archive.org/details/Parmar1970>

THE UNIVERSITY OF ALBERTA

EFFECTIVENESS OF THE USE OF HISTORICAL DOCUMENTS
IN TEACHING HISTORICAL CONCEPTS
IN SOCIAL STUDIES

by



BALDEV SINGH PARMAR

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE
OF MASTER OF EDUCATION

DEPARTMENT OF SECONDARY EDUCATION

EDMONTON, ALBERTA

SPRING, 1970

Thesis
1970
94

UNIVERSITY OF ALBERTA
FACULTY OF GRADUATE STUDIES

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled EFFECTIVENESS OF THE USE OF HISTORICAL DOCUMENTS IN TEACHING HISTORICAL CONCEPTS IN SOCIAL STUDIES submitted by Baldev Singh Parmar in partial fulfilment of the requirements for the degree of Master of Education.

ABSTRACT

This experiment investigated the effectiveness of the use of historical documents in teaching historical concepts in social studies on the academic achievement (cognitive domain) of the students. The investigator suggested a list of twenty-four historical documents out of which twelve were selected by a committee of three Alberta social studies teachers. Four classes of Grade 10 social studies were selected for the experiment. Two classes were designated to each of the experimental and control groups which were matched for their mean Scholastic Ability Test scores.

Seven null hypotheses were postulated concerning the differences between the two groups in their academic achievement in social studies. The investigator constructed social studies achievement test which contained fifty multiple-choice items on which item analysis had already been done for reliability and difficulty. The classification of these items under different achievement categories was validated by another committee of three Alberta Social Studies teachers.

Immediately after administering this as a pre-test, the experimental group was taught by introducing historical documents and the control group without using the historical documents for a period of six weeks. At the end of this teaching period, the same test was readministered as a post-test.

The data obtained from the pre-test and the post-test were analyzed by means of multiple regression techniques. The results of

the statistical analysis warranted the rejection of all the null hypotheses. Therefore, it was concluded that the students of grade 10 who used historical documents in the classroom showed significantly higher academic achievement in social studies than those who did not use such documents.

ACKNOWLEDGMENTS

The writer gratefully acknowledges the contribution of the chairman of his committee, Dr. D.F. Kellum, and the committee members, Dr. E.C. Wilson and Dr. J.M. Kirman. The writer is grateful to Dr. H. Kass who provided valuable advice and guidance on the statistics and the staff of the Division of Educational Research Services who assisted in the use of the computer facilities.

Appreciation is expressed to Mr. W.B.L. Jenken, the principal and Mr. C. Sutherland, the counselor of Senior High School, Barrhead who cooperated in the execution of the experiment. The writer is very grateful to Mr. K. Kowalski who taught the experimental and the control groups for this study.

The School Board and the Superintendent of the County of Barrhead kindly gave permission for the experiment to be conducted.

The writer is also grateful to all those teachers who served on committees for the selection of historical documents and for the validation of the items of the instrument. Special thanks to Mr. P.L. Avasthi who very kindly assisted the writer in the compilation of the data.

A debt of gratitude is owed to my wife, Mohinder, for the moral support given during a long year of study. Thanks to Jeet, my daughter, who helped me in proof reading.

TABLE OF CONTENTS

CHAPTER	PAGE
I. THE PROBLEM AND DEFINITIONS OF TERMS USED	1
The Problem	1
Introduction	1
Statement of the problem	1
Importance of the study	1
Need for the study	4
Experimental design	4
Basic limitations of the study	5
Definitions of Terms Used	6
Historical document	6
Historical method	6
Source method	6
History	6
Social sciences	7
Social studies	7
Unit	7
Academic achievement	7
Cognitive domain	8
Knowledge	8
Comprehension	8
Application	8
Analysis	8

CHAPTER	PAGE
Synthesis	8
Evaluation	8
Inquiry approach	9
Pedagogy	9
Hypotheses	9
Hypotheses to be Tested	9
Major hypothesis	9
Minor hypotheses	10
Summary	11
II. REVIEW OF THE LITERATURE	13
Historical Perspective on the Source Method	13
Rationale for the Use of Historical Documents	14
Rationale for the Source Method	16
Functions of the Document.	21
Advantages and Disadvantages of Using	
Historical Documents	23
Advantages	23
Disadvantages	25
Refutation of Arguments against the Use of Sources	27
Research Literature on the Source Method	27
Concluding Statement	30
III. RESEARCH DESIGN	32
Sample	32

CHAPTER	PAGE
Pupil sample	32
Teacher sample	34
Selection of Materials	34
Selection of teaching unit	34
Selection of historical documents	35
Rationale for selecting the documents	36
Document I	36
Document II	37
Document III	37
Document IV	38
Document V	38
Document VI	39
Document VII	40
Document VIII	40
Document IX	41
Document X	41
Document XI	42
Document XII	42
Procedure	42
Preparation of the test	42
Rationale for using Bloom's clarification of objectives.	43
Administering the pre-test	44

CHAPTER	PAGE
Teaching experimental and control groups	45
Administering the post-test	45
Marking the tests	45
Data Analysis	46
Linear regression analysis	46
Variables used in the experiment	47
IV. RESULTS OF THE EXPERIMENT	49
Introduction	49
Social studies achievement test analysis	49
Analysis of the Data	59
The difference between the experimental group and the control group means in growth of academic achievement in social studies	59
The difference between the experimental group and the control group means on the knowledge sub-test of the social studies achievement test	61
The difference between the experimental group and the control group means on the comprehension sub-test of the social studies achievement test	63
The difference between the experimental group and the control group means on the analysis sub-test of the social studies achievement test	64
The difference between the experimental group and the	

CHAPTER	PAGE
control group means on the application sub-test of the social studies achievement test	66
The difference between the experimental group and the control group means on the synthesis sub-test of the social studies achievement test	68
The difference between the experimental group and the control group means on the evaluation sub-test of the social studies achievement test	70
V. SUMMARY, CONCLUSIONS, LIMITATIONS, IMPLICATIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH	72
Summary	72
Conclusions	74
Limitations of the Study	75
Implications	77
Recommendations for Further Research	79
BIBLIOGRAPHY	80
APPENDICES	86
APPENDIX A: Scholastic Ability Scores	87
APPENDIX B: Historical Documents	90
APPENDIX C: Social Studies Achievement Test	109
APPENDIX D: Detailed Item Analysis Statistics for the Social Studies Achievement Post-test	122

LIST OF TABLES

TABLE	PAGE
I. Significance of Difference Between the Experimental and the Control Groups for the Means and the Standard Deviations	33
II. Significance of Difference Between the Experimental and the Control Groups for the Variance	34
III. Variables Used in the Analysis of Test Results	48
IV. Summary of the Item Analysis and Reliability Statistics for the Social Studies Achievement Test	50
V. Designations of Variables for Descriptive Statistics and Multiple Linear Regression Analysis	53
VI. Intercorrelations Among the Pre-test Variables, Post-test Variables and Scholastic Ability Measures for the Experimental Group and the Control Group	54
VII. Significance of Difference Between the Experimental and Control Groups for the Means on Pre-test and Post-test .	56
VIII. Comparison of the Experimental and the Control Groups Post-test Means in Social Studies Achievement	60
IX. Comparison of the Experimental and the Control Groups Post-test Means on the Knowledge Sub-test	62
X. Comparison of the Experimental and the Control Groups Post-test Means on the Comprehension Sub-test	64

TABLE

PAGE

XI.	Comparison of the Experimental and the Control Groups	
	Post-test Means on the Analysis Sub-test	65
XII.	Comparison of the Experimental and the Control Groups	
	Post-test Means on the Application Sub-test	67
XIII.	Comparison of the Experimental and the Control Groups	
	Post-test Means on the Synthesis Sub-test	69
XIV.	Comparison of the Experimental and the Control Groups	
	Post-test Means on the Evaluation Sub-test	71

LIST OF FIGURES

FIGURE	PAGE
1. Comparison of the Experimental and the Control Group	
Social Studies Achievement Pre-test Means	57
2. Comparison of the Experimental and the Control Group	
Social Studies Achievement Post-test Means	58

CHAPTER I

THE PROBLEM AND DEFINITIONS OF TERMS USED

I. THE PROBLEM

Introduction. "It would be neither feasible nor desirable to specify the detailed content of the Alberta Social Studies program."¹ The Alberta Education Department indicates the general content to be covered by the high school teacher of social studies and specifies certain desired objectives of education, in knowledge, skills, understanding and attitudes. Within these limitations, the social studies teacher is free to select different materials and sources to be used in the classroom. He employs his knowledge and experience in selecting and using these sources to achieve the desired objectives.

Statement of the problem. Much of the literature on the subject tends to indicate that the use of historical documents in teaching social studies makes the history alive and creates interest and motivation in students. The purpose of this study is to compare the academic achievement of students using historical documents in the classroom with those not using such documents.

Importance of the study. "History offers a society the opportunity to study its past problems and successes, thus giving insight into pro-

¹Department of Education, Alberta, Tentative Course Outline for Social Studies in the Province of Alberta, January, 1969, p. 7.

blems it faces today."² The College Examination Board appointed the Commission on History which, in its report, lists the following objectives of teaching of history:

1. An understanding of fundamental problems and some knowledge how man has dealt with these at different times and in different places.
2. Development of objective attitude toward social customs, organizations, and institutions and an attitude that human society is always in motion and is never static.
3. An appreciation of the fact that no movement in human affairs can be adequately comprehended or properly appraised without reference to the impulses, near or remote, which set it in motion.
4. An appreciation of the fact that since change is the essence of society, the social machinery must be constantly adjusted to meet the changing social needs...³

Bining and Bining state that the objectives of teaching social studies are (a) acquiring of knowledge, (b) development of reasoning, (c) training in independent study, (d) formation of habits and skills,

²J.D. Geddes, How to Study History (New York: Vantage Press, 1965), p. 29.

³College Entrance Examination Board, Commission on History, "Report of the Commission," The Social Studies, 27:549-550, 1936.

and (e) training in desirable patterns of conduct.⁴

The British Ministry of Education Pamphlet No. 23, Teaching History, outlines three objectives for the teaching of history:

1. Instruction in the lives of the people of the past helps the student "to discriminate between disinterested and selfish purposes, or between heroism or cowardice."⁵
2. Study of heritage of the past helps the student to understand the environment in which he has to live and act.
3. Training in skills of the historian helps the student to develop critical viewpoint and to acquire an "imaginative experience" in a particular area of study.⁶

Finally, the Commission on History appointed on April 11, 1934 reports in December, 1936 that history, properly taught, should offer a particularly favourable opportunity to train students:

1. How and where to get information
2. How to weigh evidence and discount prejudice
3. How to reach logical conclusions
4. How to select, arrange and present social data as preliminary to the formation of a sound opinion about any social

⁴A.C. Bining and D.H. Bining, Teaching the Social Studies in Secondary Schools (New York: McGraw-Hill Book Company, Inc., 1952), p. 34.

⁵Ministry of Education Pamphlet No. 23, Teaching History (London: H.M.S.O., 1952), p. 13.

⁶Ibid., p. 18.

pattern, past or present.⁷

To achieve these objectives, the use of historical documents has grown more prevalent and wide spread in the classroom. Consequently, it has not only become more important but essential for social studies educators to know the effect of the use of sources on the growth of the academic achievement of the pupils.

Need for the study. The need for the study was derived from the following questions arising from the use of educational literature available to the Alberta Social Studies teacher:

1. Although there seems to be a trend toward using increasing number of historical documents, no study as to the effectiveness of their use in the classroom has been undertaken in the Province of Alberta.
2. The literature on the use of historical documents does not report any uniform conclusions for the guidance of the Alberta Social Studies teacher.

Experimental design. Four classes of Social Studies 10 of the Senior High School, Barrhead, Alberta were involved in the experiment. The control group and the experimental group consisted of two classes each. The experimental and the control classes were designated so as not to be significantly different with relation to their scholastic ability

⁷College Entrance Examination Board, Commission on History, "Report of the Commission," Teaching of History, Henry Johnson (New York: The Macmillan Company, 1940), p. 117.

scores. These scores were taken from their cumulative records maintained by the school.

The same teacher taught all four classes - control as well as experimental groups. The same test was given as the pre-test and the post-test. Comparison of post-test scores and the pre-test scores was made to determine the difference in the achievement growth between the two groups.

Basic limitations of the study.

1. Subject matter taught during the experiment was limited to the first part of Unit III of the Social Studies 10 program.⁸
2. The teaching period for this part of the Unit was limited to six weeks - the time allotted to the teaching of this area by the Education Department, Province of Alberta.⁹
3. Number of students involved in experimental and control groups was limited to four classes with 121 students only. Because of circumstances, this limitation could not be eliminated.
4. In the teaching of this Unit, only one teacher was involved.
5. No attempt was made to compare the approach to teaching

⁸Department of Education, Province of Alberta, Senior High School Curriculum Guide for Social Studies 10, 20, 30 and 33 (Edmonton: Queen's Printers, 1967), p. 29.

⁹Ibid.

history outlined in this study with any other approach.

The teacher used the inquiry approach in both the groups.

II. DEFINITIONS OF TERMS USED

Historical document. An historical document is a record produced literally or geographically, of an idea or event of the past by a person who was directly associated with the event or idea in time and space. For the purpose of this study, terms document, historical document, and source are used synonymously.

Historical method. Historical method is the procedure of discovering, selecting, analyzing, and synthesizing the source materials of events in the past.

Source method. Source method, in relation to the teaching of social studies, is the procedure used in education whereby the student is supplied with one or more primary source(s) and is required to examine the source(s) in accordance with the steps laid down in the historical method.

History. History is the scientific study of the sources such as archaeological record - the concrete relics and monuments of the past on one hand - and the pictorial and written documents, on the other.¹⁰

According to Collingwood, "History is a science, or an answering of questions; pursued by interpretation of evidence; and for the sake of human knowledge...it teaches us what man has done and thus

¹⁰V.G. Childe, History (London: Cobett Press, 1947), p. 3.

what man is."¹¹

Social sciences. Social science consists of disciplines such as economics, politics, anthropology, psychology, sociology, geography, aesthetics, ethics, imaginative literature, and history, each with an emphasis on selected aspects of human affairs.¹²

Social studies. For the purpose of this thesis, the term 'Social Studies' relates to those portions or aspects of the social sciences that have been selected and adapted for use in schools or in other instructional institutions.¹³

Unit. Unit refers to the focusing of material and experiences upon a particular theme or problem in such a way that learning results.¹⁴ In other words, it is a division of subject which emphasizes the organization of material in related groups, each large enough to be significant, but small enough to be seen as a whole by the pupil.¹⁵

Academic achievement. Academic achievement, for the purpose of this study, is confined to the achievement in activities of 'cognitive

¹¹R.G. Collingwood, The Idea of History (Oxford: The Clarendon Press, 1946), pp. 10-11.

¹²C.A. Beard, A Charter for the Social Sciences in the Schools (New York: Charles Scribner's Sons, 1932), p. 17.

¹³E.B. Wesley, and S.P. Woronsky, Teaching of Social Studies in the Schools (Boston: D.C. Heath and Company, 1958), p. 3.

¹⁴Province of Alberta, Department of Education, Op. Cit., p. 14.

¹⁵Bining and Bining, Op. Cit., p. 159.

domain' only as described by B.S. Bloom. Each of the following seven activities is taken from B.S. Bloom.¹⁶

Cognitive domain. Cognitive domain is used here to include activities such as remembering and recalling knowledge, thinking, problem-solving, and creating. These activities have been classified by Bloom as knowledge, comprehension, application, analysis, synthesis, and evaluation.

Knowledge. Knowledge includes those behaviors and test situations which emphasize the remembering, either by recognition or recall, of ideas, materials, or phenomena.

Comprehension. Comprehension includes those objectives, behaviors, or responses which represent an understanding of literal message contained in a communication.

Application. Application is the ability to use an abstraction correctly, and to apply it to an appropriate situation in which no mode of solution is specified.

Analysis. Analysis emphasizes the breakdown of the material into its constituent parts and detection of the relationships of the parts and of the ways they are organized.

Synthesis. Synthesis is a process of working with elements, parts, etc., and combining them in such a way as to constitute a pattern or structure not clearly there before.

Evaluation. Evaluation is the making of judgments about the value,

¹⁶B.S. Bloom, Taxonomy of Educational Objectives: Handbook I - Cognitive Domain (New York: David McKay Company, Inc., 1957), p. 7-144.

for some purpose, of ideas, works, solutions, methods, materials, etc. It involves the use of criteria as well as standards for appraising the extent to which particulars are accurate, effective, economical or satisfying.

Inquiry approach. As applied to the teaching of social studies, this is the method by which the students learn the ways the historians collect evidence and use it to interpret the past, judge whether the author's conclusion is supported by evidence presented, draw alternative conclusions and present the evidence on which these conclusions are based.¹⁷

Pedagogy. For the purpose of this study, pedagogy is defined as the art of using documents in the teaching of social studies.

III. HYPOTHESES

In this study, the relative effectiveness of the use of historical documents and non-use of historical documents in the classroom was determined by testing the hypothesis that the use of original sources does not affect academic achievement.

Hypotheses to be Tested

Major Hypothesis. There is no significant difference in the academic achievement of students of grade 10 using historical documents in the classroom and of those not using the historical documents

¹⁷Edwin Fenton, Teaching the New Social Studies in Secondary Schools - An Inductive Approach (New York: Holt, Rinehart and Winston Inc., 1966), p. 150.

for teaching social studies.

Minor Hypotheses.

1. There is no significant difference in the achievement of knowledge of students of grade 10 using historical documents in the classroom and of those not using the historical documents for the teaching of social studies.
2. There is no significant difference in the achievement of comprehension of students of grade 10 using historical documents in the classroom and of those not using the historical documents for the teaching of social studies.
3. There is no significant difference in the achievement of the analysis ability of grade 10 using historical documents in the classroom and of those not using the historical documents for the teaching of social studies.
4. There is no significant difference in the achievement of the application ability of students of grade 10 using historical documents in the classroom and of those not using historical documents for the teaching of social studies.
5. There is no significant difference in the achievement of synthesis ability of grade 10 students using historical documents in the classroom and of those not using the historical documents for the teaching of social studies.
6. There is no significant difference in the achievement of evaluation ability of students of grade 10 using historical

documents in the classroom and of those not using the historical documents for the teaching of social studies.

IV. SUMMARY

The need for the study was indicated by the absence of any study with regard to the effectiveness of the use of historical documents in the Alberta classroom on the achievement growth of the students, and by the lack of uniform conclusions on the effectiveness of the use of these documents, for the guidance of Alberta Social Studies teacher. The experiment was designed to compare the academic achievement growth of the students using the historical documents in the classroom with those not using the historical documents for the teaching of social studies. The academic achievement referred to the activities of 'cognitive domain' only, as set forth by B.S. Bloom, and no attempt was made to compare the effect of the use of historical documents on the activities of the 'affective domain.' Both groups - experimental and control - were matched in relation to the means and standard deviations of qualitative and verbal Scholastic Ability Test scores taken from their cumulative records. The 121 students involved in the experiment were given a pre-test and a post-test, the scores from which furnished the data for comparison. The subject matter taught was Social Studies 10, Unit III, Part II as described in the Senior High School Curriculum Guide for Social Studies 10, 20, 30 and 33. This part of the Unit was taught to both groups by the same tea-

cher over a period of six weeks in the interval between October and Christmas, 1969. Arrangements were made to ensure that no historical documents were exposed to the control group.

CHAPTER II

REVIEW OF THE LITERATURE

I. HISTORICAL PERSPECTIVE ON THE SOURCE METHOD

"During the decade after 1885 A.D., the source method caught the fancy of a substantial number of educators and public school teachers."¹ This approach to history teaching became particularly popular in Nebraska. Because of the overwhelming enthusiasm among the social studies teachers for the source method, Templeton reports, that Mary Sheldon Barene's text book - Studies in General History (Student's edition) was officially adopted in the 1890's.² The persistent demand for explanatory materials made Nebraska's History Department publish a series of articles in the Northwestern Journal of Education in 1897. These articles tried to explain the method for the teachers and also to provide them with additional source materials for class use.

The source method did not become the predominant approach in the teaching of history in spite of explicit prescriptions of the educators. By 1900, volume of current literature on source method had gone down considerably. A decade later, writing about the source method was revived again. But the writers' approach had since changed. "No

¹R.I. Templeton, "The New History," Social Education, 32:800, December, 1968.

²Ibid., p. 801.

longer were the champions of the source method writing about teaching history by the source method; instead they advocated using sources in the teaching of history."³

II. RATIONALE FOR THE USE OF HISTORICAL DOCUMENTS

"Valid history emerges from a rational and critical examination of evidence,"⁴ presented through the use of historical documents. In an age which is full of propaganda, distortions and 'brainwashing', it becomes very essential that our young people be provided and equipped with an approach - a way of thinking that should enable them "to separate the false from the true by weeding out halftruths, unrelated truths and the like."⁵

Emphasizing the use of documents, Keatinge remarks:

To persons of a simple and trusting disposition, every word that appears in print seems to be equally worthy of credence. Our pupils must not be allowed to remain in the blissful state of mind. Through documents, they must learn the tests of internal evidence and to summarize and extract salient points.⁶

Ingraham, realizing the complexity of the problem, warns the

³Ibid., p. 802.

⁴E.T. Tapp, "Some Thoughts on Teaching History," Australian Journal of Education, 6:204, October, 1962.

⁵Donald Schneider, "The Historical Method in the Teaching of History," Peabody Journal of Education, 40:201, January, 1963.

⁶M.W. Keatinge, Studies in Teaching of History (London: Adam and Charles Black, 1910), p. 39.

educators that we can no longer put just one textbook in the hands of our history students. Nor can we provide the students, under one set of covers, the variety of materials they need. He stresses that we must make available the kinds of materials and sources that can provide the youngsters the opportunity for inquiry into many more primary sources, documents, biographies, and memoirs.⁷

Allen reinforces the preceding point of view by adding that original documents are indispensable to the historian and to the classroom teachers. History teachers have come to realize the importance of these documents and are now using them with greater frequency to motivate students and to give more depths to the nation's past.⁸ Incorporated Association of Assistant Masters in Secondary Schools is of the opinion that

the citizen should know something of his inheritance, and should possess an understanding of political problems. Unless such an equipment (document) is made available - and in the main, this must be done in the secondary schools - the foundation of democracy will be undermined by a negative and passive conception of citizenship.⁹

To fulfil this objective, they must learn to explore many avenues of choice efficiently and objectively, and to make rational judg-

⁷L.W. Ingraham, "Discovery and Inquiry in History and the Social Studies," High Points, 47:8, January, 1965.

⁸R.F. Allen, "Preserving the Spirit of Original Documents," Social Education, 30:423, October, 1966.

⁹Incorporated Association of Assistant Masters in Secondary Schools, The Teaching of History (Cambridge: The University Press, 1958), p. 4.

ments. When the use of historical documents becomes a major objective in the social studies curriculum at all levels, it will provide a means of developing the students' ability to think critically and creatively and equip them with a way of approaching academic as well as every day tasks.¹⁰

III. RATIONALE FOR THE SOURCE METHOD

"The use of historical documents is based on the assumption that youngsters ought to become involved in employing the same methodological processes as the professional historian."¹¹ This means, of course, that the student must study the primary source materials and develop an ability to induce and deduce information from them. This, by no means, should give an impression that the aim of teaching history is to make a historian out of every history student. In this approach, the student seeks the information necessary to solve the problem, evaluates the sources of their information, analyzes the conflicting statements, outlines and organizes the information, discriminates between data which are irrelevant and untenable and refrains from hasty generalizations.¹²

¹⁰Schneider, Op. Cit., p. 209.

¹¹Templeton, Op. Cit., p. 800.

¹²L. Hanna, "Providing for Individual Differences in Teaching Critical Thinking," Fifteenth Yearbook (The National Council for the Social Studies, 1944), pp. 88-89.

Kellum gives this method another name - interpretation approach.

He writes:

The interpretation approach to history not only provides the opportunity for development of basic research skills - reading quickly for broad understandings and attentively for detail, distinguishing between primary and secondary sources, evaluating evidence and synthesizing data - but it advances capacity for development of skills in critical interpretation.¹³

Bolster advocates the use of historical method as it involves the use of critical judgment in drawing the conclusions and therefore, provides a valuable training for responsibilities of democratic citizenship.¹⁴

Banks and Hogan advocate the idea to prepare the students for an increasing independent world. They suggest that history students must be exposed to a broader rather than a parochial conception of history. The teachers should try to teach the students to critically examine historical records and sources and expose them to the methods of the historian. The writers are convinced that only by adopting and utilizing this approach to teaching history can the educators be more assured of developing critically minded citizens for a world in which the ability to think and solve problems will be indispensable for the

¹³D.F. Kellum, American History Through Conflicting Interpretations (New York: Teachers College Press, Columbia University, 1969), p. 6.

¹⁴A.S. Bolster, Jr., "History, Historians and the Secondary School Curriculum," Harvard Education Review, 32:47, Winter, 1962.

survival of our great democratic heritage.¹⁵

Recently, a great controversy has developed among the social studies educators as to the role of source materials in the teaching of social studies. The basic differences concern the amount of attention that should be given to the use of original sources in the secondary schools.

One school of educators believes that history teaching at this level should focus on the study of source materials. Fenton advocates that history projects should be built around combination of source materials.¹⁶ Halsey, who is involved in Amherst project wants that the units should be designed to make maximum use of original sources.¹⁷ Brown rejects the idea that the use of original sources should be confined to abler students as an enrichment activity. He remarks that the use of sources might be the only sensible way of studying history.¹⁸

Banks contends that since history is a mode of enquiry, as well

¹⁵J.A. Banks, and E.O. Hogan, "Inquiry: A History Teaching Tool," Illinois School Journal, 48:180, Fall, 1968.

¹⁶Edwin Fenton, "History in the New Social Studies," Social Education, 31:327, May, 1966.

¹⁷V.R. Halsey, "American History: A New High School Course," Social Education, 27:250, May, 1963.

¹⁸R.H. Brown, "History as Discovery: An Interim Report of the Amherst Project," Edwin Fenton, (ed.) Teaching of New Social Studies in Secondary Schools: An Inductive Approach (New York: Holt, Rinehart and Winston, Inc., 1966), p. 445.

as an account of the past, students must become involved in the historical method if they are to develop the power of inquiry and problem-solving skills. If pupils are well-versed in this approach, they will read history more critically.¹⁹

According to Hardwick, to acquire an ability in using the historical method and in understanding the structure of historical thinking, children must study original sources, record details and make inferences from the source, interpret the details and inferences, and express the results in their own language.²⁰

Emphasizing the importance of the source method in history, Harrison remarks that there is probably no better way to train the student in this aspect of research than to confront him with examples of conflicting evidence and help him reason his way through to a conclusion. To accomplish this, the teacher should introduce pupils to primary, as well as secondary sources.²¹

Opposed to the preceding point of view, are those educators who consider that the source materials should play a somewhat lesser role in the teaching of social studies in the secondary schools.

Cartwright blames the supporters of the source method for the revival of "source method of 1890's which stated that history in the

¹⁹J.A. Banks, "Utilizing the Historical Method in Social Studies," The Instructor, 77:105, January, 1968.

²⁰F.C. Hardwick, Teaching of History and Geography (Toronto: W.J. Gage Limited, 1964), p. 6.

²¹L.H. Harrison, "Teaching Research Methods in History," Peabody Journal of Education, 45:325, May, 1968.

high schools should be habitually and almost exclusively presented through the use of primary sources."²² He feels that this approach was repudiated by the Committee of Seven of the American Historical Association which in its report stated that "the sources are not intended to be either the sole or the principal material for school study."²³

The recent revival of interest in the source method has, most probably, its bases in Bruner's philosophy which states that "the school boy learning physics is a physicist and it is easier for him to learn physics behaving like a physicist than doing something else."²⁴ Taking exception to this philosophy, Palmer wonders "how useful it is for all students to play the role of historian all the time in every history course."²⁵

Johnson contends that few teachers would now advocate the source method as understood by Mary Sheldon. He thinks that the use of sources should be such as "to indicate the general nature of the problems behind organized history, and sufficient to give some definite training

²²W.H. Cartwright, "The Future of Social Studies," Social Education, 30:83, February, 1966.

²³Ibid.

²⁴Jerome S. Bruner, The Process of Education (Cambridge: Massachusetts: Harvard University Press, 1960), p. 14.

²⁵J.R. Palmer, "Reply to William H. Cartwright," Social Education, 31:200, March, 1967.

in the solution of such problems."²⁶

IV. THE FUNCTIONS OF THE DOCUMENT

The opinions of the educators of social studies regarding the functions of historical documents in the secondary schools are numerous and varied. The review of literature reveals that the educators evaluated the function and importance of a document from their individual points of view.

Arnold claims that a basic function of education is to develop the processes of intelligence. Arnold and Lahey suggest that historical documents make a positive contribution toward this end if they are presented as a process, a way of creating knowledge, not as a subject, something to be learned.²⁷

Meiland views it in relation to his definition of history. History to him, is a critical exposition of the document and a history without documents, if it should be a history at all, would be similar to a past history, a history without any significance for any individual.²⁸

Keatinge seems to go along with Meiland when he writes:

In history, we observe some human product; it may be a monument,

²⁶Henry Johnson, Teaching of History (New York: The Macmillan Company, 1940), p. 304.

²⁷R.L. Arnold and W.C. Lahey, Inquiry: A Source Book for the Discovery Approach to Social Studies (New York: State University Press, 1965), p. 51.

²⁸J.W. Meiland, Skepticism and Historical Knowledge (New York: Random House Inc., 1965), p. 23.

an inscription, or a document: in most cases the latter. We reason back from the document to the causes that produced it, i.e. to the historical fact ... then we attempt to trace the operation of this fact in the complex of other facts that we discover the same way.²⁹

Allen thinks that the original documents are intended to convey the spirit and milieu of historical eras, as well as knowledge of events and ideas, permitting the students to widen their historical perspective and to realize that "these people really lived," and had problems and aspirations, hopes and fears, as do all men in all eras.³⁰

Tryon is convinced that the function of sources in the teaching of history is

to make the subject real and vital, to get the spirit of the times, to acquaint the pupils with different kinds of historical matter, to cultivate the historical sense, to aid visualizing scenes..., to get additional first hand information on the point, to correct mistaken ideas, to broaden the pupils' viewpoint and give slight training in research work.³¹

Moulton, in conducting an experiment by using historical documents in the teaching of social studies in a Junior high school describes the goals of using the documents as follows:

1. To develop in the student an emotional as well as rational commitment to the importance of certain problems and their solutions.

²⁹Keatinge, Op. Cit., p. 29.

³⁰Allen, Op. Cit., p. 424.

³¹R.M. Tryon, Teaching of History in Junior and Senior High Schools (New York: Ginn and Company, 1921), p. 80.

2. To provide exercise in the development of elementary techniques in research.
3. To make the students lose their fear of imposing-looking documents. The students need to learn a technique for approaching complicated or unfamiliar types of material and they also need to know that there are many different kinds of historical sources.³²

Andrews stresses the importance of historical documents in the classroom and enumerates their functions:

1. The most important function of sources is to impress upon the students the fact that history is based upon evidence.
2. A document brings the past nearer and gives bygone events a sense of reality as nothing else does.
3. Critical thinking involved in using documents makes the students learn what research is and it creates such tempting foretastes as shall stir in them life-long appetite, and leaves them no longer the bond-slaves of authority.³³

V. ADVANTAGES AND DISADVANTAGES OF USING HISTORICAL DOCUMENTS

Advantages: Source materials when employed in the teaching of social

³²M. Moulton, "Using Documents in Junior High Schools," Social Education, 26:310-312, October, 1962.

³³G.G. Andrews, "The Use of Historical Documents," The Social Studies, 27:464-468, November, 1936.

studies have some pedagogical advantages. Source materials contain detailed information about a relatively small class of phenomena. This provides lesser difficulty for the learner than if he were asked to deal with more general events. As the source materials present problems setting forth various points of view, such an approach motivates students by challenging them to try to resolve the issue.³⁴

Brown believes that by using sources, the student learns best as an active inquirer - by asking questions, and pursuing their answers - rather than when he is asked to master the answers of others to questions which may be quite irrelevant to him or which he may only dimly understand.³⁵

According to Sutherland, if the sources are well-chosen, and are appropriate to the age of the pupils, history is brought to life and made vivid for them.³⁶ Consequently, through their own analysis, the pupils become aware of many difficulties involved in arriving at historical truths. Conflicting accounts of the same event can be presented to the pupils to sift and weigh for the part of the truth contained in each. "Moreover, the ability to see bias and deal with

³⁴A.S. Anthony, "Pedagogical Limitations of the Source Materials Approach to the Teaching of History," The Social Studies, 60:54, February, 1969.

³⁵Brown, Op. Cit., p. 444.

³⁶Neil Sutherland, The Document in the Teaching of History (Vancouver: Teachers' Federation, 1960), p. 3.

interpretation should equip the student to cope more rationally with value-laden issues, he meets outside the school environment."³⁷

Allen finds source materials assisting us in improving understanding and strengthening judgment. He points out that the source materials add, to our own experience, an immense treasure of experience of others, and thereby enable us to enter upon the business of life with the advantage of being, in a manner, acquainted with it.³⁸

Hardwick tries to list the advantages of using sources in the following manner:

1. The skills of the historian is indicated, in part, by the manner in which he selects details and draws inferences from his documents. It is the same kind of skills which a pupil can aspire to achieve.
2. Use of original sources helps to make the study of history an inductive process for the pupils.
3. Use of original sources encourages pupils to be constructively critical in their thinking, and particularly to be aware of biased treatment of important historical events, including contemporary events.³⁹

Disadvantages: Anthony points out that pupils will encounter difficulty

³⁷Templeton, Op. Cit., p. 800.

³⁸R.F. Allen, "The Uses of History," Social Education, 31:293, April, 1967.

³⁹Hardwick, Op. Cit., pp. 90-91.

in reading and comprehending out-dated language and idioms, unusual words, and complex sentences of the documents which are foreign to their experiences. Since these documents must not be altered in any way, (except translation) it is not possible to effect the necessary pedagogical adjustments with these.⁴⁰

Allen warns the educators that

over-confidence in the variety of documents and sources ... merely insures the continuation of previous errors and theories. The failure to comprehend a source or the intention of its author is no more excusable than sheer exaggeration, since the outcome is the same ... Ignoring the transformations caused by the passing of time is most common fault of students. Rather than place a person or a place in its historic context, there is a tendency to read the present back into history.⁴¹

Incorporated Association of Assistant Masters in Secondary Schools attacks the use of sources from another angle. They contend that superficially, the idea of using sources is very attractive. It makes the teacher believe that he is really doing his job well as an historian, by leading the pupils to the fountain-head. In fact, "it is nonsense ... Research on all but the simplest documentary evidence of the past is far too difficult an intelligent exercise for it demands a well-trained mind."⁴²

⁴⁰Anthony, Op. Cit., pp. 53-54.

⁴¹R.F. Allen, "The Method and Process of History," The Social Studies, 58:69, February, 1967.

⁴²The Teaching of History, Op. Cit., p. 79.

VI. REFUTATION OF ARGUMENTS AGAINST THE USE OF SOURCES

The main objection that the source method is too time consuming and that coverage of the course cannot be accomplished within the stipulated period, is challenged by Russell. He believes that only specialized work gives students the confidence to make their deductions from evidence. Breadth may be more popular because it asks for no change in learning techniques, but intellectually, it is stultifying soft opinion. Breadth is only defensible where knowledge itself must be acquired whether or not it improves the minds of those who know it.⁴³

Kellum also defends this point of view when he states that in a class where sources are used, data is not doled out to the student in the largest portions that can be "learned" at one sitting; rather it is released to him through his own effort to find and make use of it. He is led to the information because he needs it, thus discovers the information and is aware of its importance at the same time.⁴⁴

VII. RESEARCH LITERATURE ON THE SOURCE METHOD

The review of the literature shows that not too many research

⁴³Conrad Russell, "From School to University," The Times Educational Journal Supplement, 2762:1385, April 26, 1968.

⁴⁴Kellum, Op. Cit., p. 3.

projects on the use of sources have been undertaken. Even the projects undertaken report no uniform conclusions.

Gold undertook a study in 1917 to determine the extent of the use of source materials. Most of the 113 teachers involved in this study frequently reported that they used source materials "to make history live" and to stimulate interest. The significance of this study however, has decreased with its age.⁴⁵

Weaver conducted a study with grade seven students to compare the historical understanding gained through intensive study and extensive reading in United States history course. He concluded:

... it appears that the understanding of United States history gained by pupils in the seventh grade when they read extensively from carefully selected accounts of a subject of study is as good as, if not better than, the understanding which they gain when they study a few carefully selected accounts intensively.⁴⁶

Rothstein conducted an investigation with grade eleven students in United States history course with emphasis on the development of critical thinking. The experimental group used carefully prepared materials including primary sources while the control group was taught 'conventionally.'

The result of this experiment shows that experimental group developed and improved their critical thinking abilities and simultan-

⁴⁵Hugo Gold, "Methods and Content of Courses in History in High Schools of the United States," School Review, 25:274-282, April, 1917.

⁴⁶R.B. Weaver, "The Relative Value of Intensive and Extensive Reading in United States History," School Review, 39:226, March, 1931.

eously showed no loss in subject matter achievement as compared to the control group.⁴⁷

An exploratory study in world history involving thirty-five grade ten students over a period of one year, was conducted by Massialas and Zevin. The results of this study indicated that students were able to utilize the process of discovery and inquiry successfully in the development of critical thinking and work study skills.⁴⁸ As the study was only exploratory and the findings were based upon limited observations, it might not be considered significant.

Massialas and Zevin undertook another study in two secondary schools over a period of three years. The study sought to explore ways in which students of secondary school age may be stimulated by the teacher to order their own learning and to conduct inquiries into crucial problems of society.⁴⁹ The results indicate that "given the initial stimulus, students were able to perform such logical tasks as identifying and delimiting a problem, suggesting intellectual strategies in dealing with the problem and developing hypothesis which guided them in their search for reliable and relevant data."⁵⁰

⁴⁷H. Rothstein, "An Experiment in Developing Critical Thinking Through the Teaching of American History," Dissertation Abstracts, 21: 1141, November, 1960.

⁴⁸B.G. Massialas, and J. Zevin, "Teaching Social Studies Through Discovery," Social Education, 28:384-387, 400, November, 1964.

⁴⁹B.G. Massialas, and J. Zevin, Creative Encounters in the Classroom (New York: John Wiley and Sons, Inc., 1967), p. vi.

⁵⁰Ibid., p. 253.

Sutherland, in conducting his study on the use of sources stated that "inductive discovery by the pupil ... is more fruitful than deductive presentation of structure by the teacher."⁵¹

A study conducted by Floyd with American history students of Cooper High School in Delta County, Texas, concluded that average and below average ability students achieved more through digging out the information from sources.⁵²

VIII. CONCLUDING STATEMENT

The research evidence reviewed in the preceding pages suggests that the use of sources in the teaching of social studies have some advantages. The teachers who used sources state that the students readily acquire the skills of critical thinking, discover the data of history for themselves and delve deeper into areas in which they are interested.

To some teachers, the source method has no utility because of the brevity of some documents, their pedagogic irrelevance and general shortage of suitable source materials. Some teachers suggest that use of sources destroys the unity of the content and reduces the possibility of course coverage.

⁵¹Neil Sutherland, "Structure in the History Curriculum," Social Education, 26:134, March, 1962.

⁵²D.L. Floyd, "Let Your Students Make History," The Texas Outlook, 51:32, February, 1967.

Recently, interest in the use of sources has been revived in the province of Alberta because of the inquiry approach being used in teaching social studies. More and more source material is published for use in the classroom.

Although increasing importance is being attached to the use of these documents, no research seems to have been conducted in Alberta to determine the effectiveness of sources on the achievement of students. This study proposes to examine the effect of the use of sources on the intellectual abilities (cognitive domain) of the students. No attempt is made to determine the degree of change in attitudes (affective domain) in this study.

CHAPTER III

RESEARCH DESIGN

This chapter describes the research design employed to test the hypotheses regarding the effect of the use of historical documents on the academic achievement growth of students for teaching social studies.

I. SAMPLE

Pupil Sample

In an effort to select a sample of population of the same age level, the experimental and the control groups were taken from grade 10 classes of the Senior High School, Barrhead, Alberta, with a population of about five hundred students.

There were six classes of Social Studies 10 which were constructed on a random basis. No consideration was made to group them homogeneously in relation to their ability. Four out of these six classes were selected for the experiment - two classes for each experimental group and the control group. These classes were chosen on the basis of the fact that they were all taught social studies by the same teacher. In order to control the variable of ability, the classes in the experimental and the control groups were matched in relation to their average scholastic ability scores taken from their cumulative records. (See Appendix A). As the Scholastic Ability Test was given fairly recently

(in May, 1969), the scores were considered reasonably valid and reliable for this study.

The criteria for matching the two groups were the mean and the standard deviation of their verbal and qualitative scholastic ability scores. The scholastic ability scores for four students who were transferred into the school were not available at the time and hence were not included for matching purposes.

The scores were treated through the computer and the t test and the F test were performed. The analysis of the mean, standard deviation and variance in Tables I and II showed that there was no significant difference in the scholastic ability of the two groups involved in the experiment.

TABLE I

SIGNIFICANCE OF DIFFERENCE BETWEEN THE EXPERIMENTAL
AND THE CONTROL GROUPS FOR THE MEANS
AND THE STANDARD DEVIATIONS

Variables	Test	Means		Standard Deviations		df	t	Sig.
		Exper. N=57	Control N=60	Exper. N=57	Control N=60			
Verbal Ability	t	40.55	40.41	10.38	10.76	117	0.073	N.S.*
Quant. Ability	t	28.64	27.61	9.30	8.25	117	0.635	N.S.*

*Not significant

TABLE II

SIGNIFICANCE OF DIFFERENCE BETWEEN THE
EXPERIMENTAL AND THE CONTROL GROUPS
FOR THE VARIANCE

Variables	Test	Variance		F Ratio	P-Non directional	Sig.
		Exper. N=57	Control N=60			
Verbal Ability	F	107.70	115.88	1.076	0.7822	N.S.*
Quant. Ability	F	86.47	68.01	1.271	0.3596	N.S.*

*Not significant

Teacher Sample

In order to control the variables such as academic qualifications, ability, and experience of teachers, only one teacher taught the control as well as the experimental classes. The teacher selected had a degree and had more than six years of university training in the field of history social studies.

II. SELECTION OF MATERIALS

Selection of Teaching Unit

Second part of Unit III (Greece) was taught for a period of six weeks - the time allowed by the Department of Education, Province of

Alberta, for this part of the unit.¹ The Unit was taught from the first week of November till Christmas of the year 1969. The selection of the Unit was determined by the fact that the regular classes, following the course of studies, were on this unit at the time of the commencement of the experiment. Therefore, no major change in the usual schedules of the classes had to be made.

Selection of Historical Documents

According to Neil Sutherland, "if the sources are well-chosen and are appropriate to the age of the pupils, history is brought to life and made vivid for them."² To make sure that the choice of the historical documents was appropriate, a committee of three social studies teachers, each with a degree and a minimum teaching experience of three years in the Province of Alberta, was appointed. This committee included the teacher who was going to teach the Unit in this experiment. The criteria for the selection of documents were (1) their usefulness in the classroom in the light of the past teaching experience of these teachers, (2) their suitability for the students of Grade 10, (3) and their relevance to the unit taught. The investigator suggested to the committee a list of twenty-four such documents pertaining to this sub-

¹Department of Education, Alberta. Program of Studies for Senior High Schools in Alberta. (Edmonton: 1967), p. 132.

²Neil Sutherland, The Document in the Teaching of History, (Vancouver: B.C. Teacher's Federation), 1960, p. 3.

ject area. The committee scrutinized each document in the light of the criteria described above. Each document was selected if either all the three teachers or two of the three teachers of the committee voted for its suitability and usefulness in the classroom. Finally, the committee selected twelve documents which were used in this experiment. (See Appendix B)

Rationale for Selecting the Documents

Over and above the three criteria used in selection, the documents were considered suitable for the study based on the following rationale:

Document I

The Tombs at Mycenae

This is a telegram by Henry Schliemann giving the news of his archaeological discovery at Mycenae to the king of Greece. In 1876, he successfully excavated and found the Treasury of Atreus at Mycenae.

The document is used to introduce the locale and to give a time perspective to the study of Greek history. It is useful to create an attitude of appreciation of the skills of the archaeologist and historian - one of the objectives of Alberta Social Studies curriculum.³ The students were motivated to gather extensive historical information relating to the items and facts enumerated in this document. It

³Department of Education, Province of Alberta, Senior High School Curriculum Guide for Social Studies 10, 20, 30 and 33 (Edmonton: 1967), p. 28.

served as an effective measure of motivating the students to undertake investigations into Greek civilization.

Document II

Adventures of Ulysses - Visit to the

Lotus-eaters and the Cyclops

The account of adventures of Ulysses while he returned to his kingdom of Ithaca from Troy after taking part in the Trojan Wars.

After Greece has been introduced through Document I, the students are ready to go into the early history of the ninth century B.C. Greece. The document is very instrumental in introducing the neighbouring city-states which took part in the Trojan Wars against Troy. The students studied the adventures of Ulysses and plotted his route on the map of the Mediterranean world. The Homeric description gives students the insight into the beliefs and values held by the ancient Greeks and tried to analyze the document for the message it conveyed.

Document III

Contrast of Athenian and Spartan Characters

Thucydides throws light on the basic differences between the Athenians and the Spartans, describing Athenians as farsighted, risk-takers and inventors, the Spartans conservative, feeble in taking initiative, dilatory, and afraid to undertake new adventures.

This document motivates the students to locate more information about the beliefs, values and way of life of the Athenians and the

Spartans, looking into their different educational, cultural and religious institutions. It promotes habits of cooperation in group activities when each group investigates a particular aspect of Greek life.

Document IV

Pericles in Praise of Athens

Thucydides relates the oration of Pericles delivered at a ceremony to honor the dead of the second Peloponnesian War at the end of 431 B.C. In this oration, Pericles praises the fundamental values of the Athenian democratic institutions and makes an appeal to the people of Athens to defend them.

The document was selected to involve the students in the study of governmental institutions of Athens. The students analyze the functioning of democracy in Athens. They attempt to apply the basic fundamentals to the modern concepts of democratic institutions. It is expected that each child would find experiences that would help to develop scientific viewpoint - marked by the search for data, weighing evidence, forming conclusions and evaluating his own judgments in the light of his present experiences. This process helps the students in applying problem-solving and critical-thinking skills to the social problems.

Document V

What is Law?

Xenophon brings out the basic fundamentals of law and force. He

employs Socratic method - inductive reasoning - to define and differentiate the terms law and force.

This document is very useful in introducing the topic 'birth of reasoning in Greece.' In the light of this principle, other philosophers such as Plato and Aristotle are studied. Comparison and contrast between different philosophies of Greece are made and usefulness of these thoughts in modern times is discussed. Such experiences are supposed to inculcate self-respect, marked by control, discipline and direction through one's own initiative and responsibility marked by behaving honestly with oneself and with others and the acceptance of the consequences of one's own actions.

Document VI

Pericles' Funeral Oration

Thucydides idealizes the Athenian viewpoint in its most compelling form. Pericles praises the governmental system of Athens where poverty is no bar, where men are not suspicious of one another and where spirit of reverence and respect for authority and for law prevails.

This document provides understandings for students investigating the administrative system and the objectives of the Athenian government during the Periclean Age. It leads student discussion of the applicability of these principles to our democratic system. Students also come to realize the importance of patriotism, reverence for authority and law.

Document VII

Crito's Dialogue with Socrates

(from the Dialogues of Plato)

A description of how the aged Crito comes to the prison to urge Socrates to escape for the sake of his own life, his family, and his friends. Socrates persuades Crito to admit that, if life is not worth living with an evil and corrupted body, it is much less worth living with an evil and corrupted spirit.

This document brings out the fact that a good citizen, having been unjustly condemned, was willing to give up life in obedience to laws of the state. The question - has a philosopher like you failed to discover that country is more precious and higher and holier far than mother or father or any ancestor ...? - posed by Socrates to Crito is considered, investigated and discussed by the students in the present context. The study of such facts becomes significant and comprehensible to the students and they use them for the development of greater understanding.

Document VIII

The Peace of Nicias

Thucydides describes the conditions under which peace was concluded between the Spartans and the Athenians in 421 B.C. The document explains that the peace terms were not thrust by one party over the other but the treaty was the product of mutual understanding of the destructive aspects of the Peloponnesian Wars.

The document motivates the students to investigate the effects of continuous wars between two city-states. The students realize, that the issues between nations can be solved by peaceful means and that wars are useless and destructive.

Document IX

Monarchy, Aristocracy, Democracy

Aristotle classifies the different types of governments. The document introduces the study of the types of government - their organization, elections, functions, and powers along with the merits and the demerits of each system. Introduction of this document motivates class discussions during the course of which many conclusions can be drawn.

Document X

The Hippocratic Oath

The oath that today's physicians take at the time of their graduation from the medical schools, originating in the medical schools of Cos, where Hippocrates was born and where he practised and taught medicine in the sixth century B.C.

The document is helpful in instigating a very intriguing discussion with regard to medical ethics such as treating friends and foes alike, serving the patients truthfully and sincerely, keeping patients' secrets. It triggers the discussion on the duties, functions and advantages of Red Cross organization - serving humanity,

friends and foes alike.

Document XI

Athenians Beware !

This is an extract from Demosthenes' oration against Philip of Macedon in 351 B.C. Demosthenes began the task of trying to persuade the Athenians of the danger threatened by the ambitious Macedonian general, Philip.

This document was chosen to introduce the last phase of the era of Ancient Greece - the rise of the city-state of Macedon under Philip. The students investigated into the events that caused jealousy and struggle between Athens and Macedonia.

Document XII

Alexander, the Great

Plutarch describes some aspects of the life and conquests of Alexander of Macedonia, the son of Philip.

This document creates interest among students to investigate the process of the rise of Macedonian Empire - conquest of Thebes, Anatolia Peninsula, Egypt, Fertile Crescent and Western India. The students study the effects of Macedonian wars with the East.

III. PROCEDURE

Preparation of the Test

A test was prepared covering the material on Greece based on the

criteria laid down in Bloom's Taxonomy - Cognitive Domain.⁴ (See Appendix C) The test was objective type and consisted of fifty multiple choice items so that subjectivity in marking could be avoided. The items included in the test were selected from those on which item analysis had been done for difficulty and reliability. These items were classified such that eight items belonged to each of knowledge, comprehension, analysis, evaluation and synthesis category and ten items to application category. A committee of three Alberta Social Studies teachers verified the validity of the classification of these items under different categories. Forty-nine items got the unanimous approval of all the three judges. One item was rejected and was replaced with the approval of majority vote.

Rationale for using Bloom's Classification of Objectives

The debate persists among academicians concerned with scholarship as to whether (1) dissemination of information, (2) the inculcation of understanding, or (3) the development of skills is the primary objective of teaching history or social studies at the secondary school level. "Regardless of the recurrent innovations as to the place of emphasis, no one of the three purposes, if the other two are ignored, can achieve the values of historical study."⁵

⁴B.S. Bloom, Taxonomy of Educational Objectives: Handbook I - Cognitive Domain (New York: David McKay Company, Inc., 1956.)

⁵D.F. Kellum, American History Through Conflicting Interpretations (New York: Teachers' College, Columbia University, 1969), p. 2.

Recently, the emphasis on creativity, on autonomy of thinking, and on the method of inquiry has brought to the fore a renewed concern with thinking and cognitive skills. The development of cognitive powers is now recognized as an important aspect of excellence. It is no longer assumed that mastery of well-organized knowledge automatically develops either autonomous or creative minds.⁶

Bloom tries to classify specific patterns of behaviour among students under different categories of cognitive objectives. Then he proceeds to divide the cognitive objectives into six sub-categories - from simplest behaviour to the most complex. As it was desired to make comparisons of achievement growth at different levels of cognitive objectives, Bloom's classification was considered to be the most suitable for this study.

Administering the Pre-Test

The test thus prepared was administered to both the control and the experimental groups on the sixth day of November, 1969 at 9 a.m. in Senior High School, Barrhead, Alberta. The teachers administering the test were requested to advise the students that the test was designed to find out what they knew about the subject before it was introduced to them in the classroom as a teaching unit. The students were also told that the results of the test were to be used by the University of

⁶Hilda Taba, Teachers' Handbook for Elementary Social Studies (Don Mills: Addison - Wesley Publishing Company, 1967), p. 2.

Alberta. The teacher who was to teach the unit was not allowed to see the test. Answer sheets were kept unmarked till the end of the experiment.

Teaching Experimental and Control Groups

Sufficient copies of the selected documents were provided for use of the experimental group. Such arrangements were made so as not to introduce or expose any historical document, selected for this experiment, to the control group. The experimental group was taught primarily using the historical documents selected by the committee. The text book and other reference books on Greece were used as reference only. The method (inquiry approach) was kept constant in both groups. The investigator visited the school quite often during the experiment period.

Administering the Post-test

At the end of six weeks when the Unit was finished, the same test was administered again on December 19, 1969 at 9 a.m. The teacher who taught the students for this experiment was not allowed to supervise the test.

Marking the Tests

IBM answer sheets were used for both the tests. After the post test, the answer sheets from both tests were scored for the total score as well as for the sub-categories scores. Before transferring these scores on to the key-punching data forms, they were machine

scored to carry out a double check.

IV. DATA ANALYSIS

Linear Regression Analysis

Programs MULR04 and MULR05 Regression Analysis, designed for use on IBM 360/67 Computer, were used to analyze the test data in accordance with the procedures laid down by Hunka⁷ and Flathman.⁸ These programs are designed to test the significance of differences between groups, the significance of relationships between variables and to calculate the correlations between all variables.

Linear Regression models were created to represent the hypothesized relationships between the variables or differences between the groups. Each model was set up to predict a criterion variable from one or more predictor variable(s); for example:

$$Y = a_0 U + a_1 X_1 + a_2 X_2 + E_1$$

One such model as above, containing hypothesized relationship was designated as the 'full model'. The other model designated as the 'restricted' model contained a restriction which is reflected by the null form of the hypothesis; for example:

$$Y = a_0 U + a_1 X_1 + E_2$$

⁷S. Hunka. 'Regression Analysis' Computer Program Documentation. Unpublished notes for students (Edmonton: Division of Educational Research Services, University of Alberta, August, 1969).

⁸D. Flathman. Hypothesis Testing with Multiple-regression. Unpublished paper (Edmonton: Division of Educational Research Services, University of Alberta, 1968).

The program calculated the squared multiple correlations that existed between the criterion variable and the predictor variables. It also calculated weights (a's in the preceding example) for each predictor variable including the unit vector variable (U). To compare the two models, squared multiple correlations and the degrees of freedom of the full and the restricted models were used. F test was used to make comparison.

F ratio was computed by using the following formula:

$$F = \frac{(R_1^2 - R_2^2) / (df_1 - df_2)}{(1 - R_1^2) / (N - df_1)}$$

where:

R_1^2 is the RSQ of the full model

R_2^2 is the RSQ of the restricted model

df_1 is the degrees of freedom of the full model

df_2 is the degrees of freedom of the restricted model

N is the number of subjects

Each hypothesis of the experiment which was stated as a statistical hypothesis and represented by linear regression model was accepted or rejected in the light of F ratio value and the degrees of freedom computed by the computer.

Variables used in the experiment

Each variable that was used in regression models to analyze

the test results was represented by the letter X and a number. The variables used in the analysis of the results are listed in Table III.

TABLE III
VARIABLES USED IN THE ANALYSIS OF TEST RESULTS

X_1	= group identity
X_2	= total pre-test score
X_3	= pre-test sub-score on Knowledge category
X_4	= pre-test sub-score on Comprehension category
X_5	= pre-test sub-score on Analysis category
X_6	= pre-test sub-score on Application category
X_7	= pre-test sub-score on Synthesis category
X_8	= pre-test score on Evaluation category
X_9	= total post-test score
X_{10}	= post-test sub-score on Knowledge category
X_{11}	= post-test sub-score on Comprehension category
X_{12}	= post-test sub-score on Analysis category
X_{13}	= post-test sub-score on Application category
X_{14}	= post-test sub-score on Synthesis category
X_{15}	= post-test sub-score on Evaluation category
X_{16}	= verbal Scholastic Ability score
X_{17}	= quantitative Scholastic Ability score
X_{18}	= total Scholastic Ability score
X_{19}	= experimental group if 1, otherwise 0
X_{20}	= control group if 2, otherwise 0

CHAPTER IV

RESULTS OF THE EXPERIMENT

I. INTRODUCTION

This chapter describes the results of the experiment as derived from the analysis of the data. The first part presents the analysis of the social studies achievement test and the second part contains the statistical results derived from the multiple regression analysis of the models used as the basis for the decisions concerning the research hypotheses.

II. ANALYSIS OF SOCIAL STUDIES ACHIEVEMENT TEST

As there was no standardized test available which could be used to test achievement in social studies in relation to the six categories of cognitive objectives as described in Chapter I, a test pertinent to the subject matter and the objectives of the study was constructed. All fifty items of the test were taken from the tests filed in the Test Library of the Department of Educational Psychology, Faculty of Education, University of Alberta. Item analysis on these tests had already been performed for difficulty and reliability. To double check the reliability of the resulting instrument, item analysis was again performed using the TEST 04 computer program of the University of Alberta, Division of Educational Research Services. The reliability statistics for this test are presented in Table IV. The detailed item

TABLE IV

SUMMARY OF THE ITEM ANALYSIS AND RELIABILITY
STATISTICS FOR THE SOCIAL STUDIES
ACHIEVEMENT TEST

Test	Number	Test Mean	Test Variance	KR-20 Reliability	Mean of Item Biserial Correlation	Mean of Item Difficulty Indices
Social Studies Achievement Pre-test	*60	12.37				
	**61	14.60				
Social Studies Achievement Post-test	*60	30.72	39.24	0.64	0.33	0.61
	**61	20.84	28.87	0.76	0.39	0.42

* Experimental group

** Control group

analysis statistics appear in Appendix D.

The scores of the sixty subjects of the experimental group and sixty-one subjects of the control group of the social studies achievement post-test were used for the test analysis. For the experimental group, the means of the item biserial correlations and the difficulty indices were 0.33 and 0.61 respectively. The cutting points for the five sub-groups, with the first group containing the twenty per cent of the subjects obtaining the lowest test scores through to the fifth group containing the twenty per cent of the subjects obtaining the highest test scores, were 26.0, 28.0, 31.0 and 34.0. On the fifty-item test, the mean score for the experimental group was 30.72. For the control group, the means of the item biserial correlation and difficulty indices were 0.39 and 0.42 respectively. The mean score for this group was 20.84 and the cutting points for the five sub-groups were 16.0, 19.0, 21.0 and 25.0.

Individual item difficulty varied from approximately 0.25 to 0.90 for the experimental group. According to Guilford, the levels of item difficulty should vary if the test is to discriminate among the students who are low or high on the ability being measured. The KR-20 reliability coefficient, however, becomes distorted and gives an underestimate if and when there is such a wide dispersion of item difficulty.¹

¹J.P. Guilford, Fundamental Statistics in Psychology and Education (New York: McGraw-Hill, 1965), p. 461.

The KR-20 reliability coefficients were found to be 0.61 for the experimental group and 0.42 for the control group.

The data in Table VI were tabulated in order to present an overview of the interrelationships between the different variables, and to provide statistics to be used while checking assumptions underlying linear regression analysis. The equivalent of partialling out techniques was used in the analysis of the relationships between variables to better determine the existence of significant fundamental relationships. Table VI presents both the intercorrelations among the control group and the intercorrelations among the experimental group for the purpose of comparison.

According to Ferguson, for a group of 60 or more subjects, the correlation coefficient of more than .25 is considered significantly different from zero at .05 level.² It was found that of the total 272 correlation indices, 71 per cent were significant at .05 level or better and 29 per cent were not significant.

Of the total 140 correlation indices for the post-test scores, 70 per cent were significant at .05 level and of the total 42 correlations for the pre-test scores, 43 per cent were significant at .05 level or better.

In comparing the experimental group and the control group for pre-test and post-test correlations, it was found that out of 91 correlation indices for the experimental group, 73 per cent were significant

²G.A. Ferguson, Statistical Analysis in Psychology and Education (New York: McGraw-Hill Book Company, 1966), p. 413.

TABLE V
DESIGNATIONS OF VARIABLES FOR DESCRIPTIVE STATISTICS
AND MULTIPLE LINEAR REGRESSION ANALYSIS

X ₂	Pre-test total scores
X ₃	Pre-test sub-scores of knowledge category
X ₄	Pre-test sub-scores of comprehension category
X ₅	Pre-test sub-scores of analysis category
X ₆	Pre-test sub-scores of application category
X ₇	Pre-test sub-scores of synthesis category
X ₈	Pre-test sub-scores of evaluation category
X ₉	Post-test total scores
X ₁₀	Post-test sub-scores of knowledge category
X ₁₁	Post-test sub-scores of comprehension category
X ₁₂	Post-test sub-scores of analysis category
X ₁₃	Post-test sub-scores of application category
X ₁₄	Post-test sub-scores of synthesis category
X ₁₅	Post-test sub-scores of evaluation category
X ₁₆	Verbal Ability scores
X ₁₇	Quantitative Ability scores
X ₁₈	Total Scholastic Ability Test scores

TABLE VI

INTERCORRELATIONS AMONG THE PRE-TEST VARIABLES, POST-TEST VARIABLES
AND SCHOLASTIC ABILITY MEASURES FOR THE EXPERIMENTAL
GROUP AND THE CONTROL GROUP

	X ₁₈	X ₁₇	X ₁₆	X ₁₅	X ₁₄	X ₁₃	X ₁₂	X ₁₁	X ₁₀	X ₉	X ₈	X ₇	X ₆	X ₅	X ₄	X ₃	X ₂
X ₁₈	1.00*																
X ₁₇	1.00**	1.00**															
X ₁₆	0.87	0.61	1.00**														
X ₁₅	0.90	0.50	0.51	1.00*													
X ₁₄	0.88	0.41	0.28	1.00**	1.00*												
X ₁₃	0.31	0.27	0.41	0.42	0.49	1.00**											
X ₁₂	0.44	0.36	0.31	0.10	0.43	0.28	1.00**										
X ₁₁	0.38	0.42	0.51	0.54	0.53	0.42	0.39	1.00**									
X ₁₀	0.52	0.47	0.54	0.48	0.42	0.38	0.41	0.44	1.00**								
X ₉	0.59	0.28	0.60	0.60	0.58	0.41	0.41	0.41	0.45	1.00**							
X ₈	0.70	0.61	0.58	0.58	0.54	0.42	0.37	0.37	0.37	0.63	1.00**						
X ₇	0.66	0.52	0.62	0.62	0.55	0.41	0.41	0.41	0.41	0.42	0.45	1.00**					
X ₆	0.58	0.50	0.54	0.42	0.36	0.27	0.35	0.11	0.06	0.19	0.31	1.00**	1.00**				
X ₅	0.62	0.49	0.58	0.31	0.37	0.61	0.77	0.67	0.79	0.79	0.45	0.49	0.04	1.00**			
X ₄	0.73	0.58	0.72	0.68	0.48	0.70	0.82	0.82	0.77	0.51	0.58	1.00**	1.00**	1.00**			
X ₃	0.79	0.65	0.72	0.57	0.48	0.44	0.31	0.31	0.42	0.42	0.34	0.19	0.02	0.02	1.00**		
X ₂	0.38	0.30	0.38	0.33	0.33	0.37	0.17	0.17	0.06	0.19	0.28	0.10	-0.19	0.16	0.35	1.00**	
Means	0.04	0.03	0.05	0.11	0.11	0.37	0.35	0.35	0.37	0.42	0.42	0.26	0.30	0.43	0.27	0.27	1.00**
S.D.	0.36	0.32	0.32	0.30	0.22	0.39	0.26	0.21	0.13	0.37	0.47	-0.06	0.08	0.05	0.00	0.13	1.00**
	0.36	0.43	0.23	0.30	0.20	0.19	0.38	0.30	0.38	0.42	0.42	0.26	0.30	0.43	0.27	0.13	1.00**
	0.51	0.38	0.49	0.17	0.09	0.36	0.47	0.41	0.37	0.47	0.47	-0.06	0.08	0.05	0.00	0.13	1.00**
	0.52	0.50	0.44	0.06	0.21	0.33	0.36	0.42	0.32	0.43	0.43	0.11	0.06	0.16	0.27	0.13	1.00**
	0.42	0.20	0.50	0.15	0.10	0.15	0.40	0.48	0.42	0.43	0.43	-0.09	0.01	-0.13	0.00	0.27	1.00**
	0.23	0.10	0.29	0.13	0.18	-0.03	0.19	0.09	0.35	0.21	0.21	0.19	0.08	-0.06	0.00	0.27	1.00**
	0.24	0.12	0.28	0.23	0.06	0.22	0.19	0.06	0.26	0.24	0.24	0.02	0.02	0.20	0.07	0.13	1.00**
	0.68	0.61	0.61	0.47	0.41	0.51	0.50	0.56	0.63	0.74	0.74	0.66	0.57	0.43	0.59	0.40	1.00**
	0.62	0.42	0.63	0.47	0.38	0.60	0.54	0.41	0.51	0.68	0.68	0.35	0.32	0.41	0.56	0.50	1.00**
	68.59	28.19	40.39	5.34	4.91	5.46	4.84	4.46	5.66	30.71	1.46	1.83	2.53	2.28	2.26	1.98	12.36*
	67.31	27.09	40.21	1.75	2.37	4.00	3.75	3.77	5.18	20.83	1.98	2.42	3.08	2.26	2.65	2.19	14.60**
	17.81	9.20	10.58	0.91	0.71	1.63	1.38	1.37	1.51	5.38	0.92	0.94	1.15	1.10	1.02	0.87	3.30**
	16.92	8.69	10.77	1.02	0.91	1.54	1.71	1.81	1.63	6.30	1.24	1.20	1.36	1.45	1.23	1.23	3.45**

* Experimental group
** Control group

at .05 level or better. Total correlation indices for the control group were also tabulated and it was noted that out of 91 correlation indices, 54 per cent were significant at .05 level or better and 46 per cent were not significant.

As each variable represented an obtained score on the sub-tests testing different aspects of intellectual ability, a low correlation among these variables existed as expected. On the whole, the predictor variables were fairly highly correlated with the criterion variable but exhibited low correlations among themselves. Ferguson remarks that "if two variables have a fairly high correlation with the criterion and low correlation with each other, both variables contribute substantially to prediction."³

In order to determine the existence of any significant differences between the experimental group and the control group on the social studies achievement pre-test means, the data were analyzed by means of the *t* test. The results are presented in Table VII. To facilitate comparison and interpretation, this was reproduced by bar-graphs in Figures I and II. A significant difference was found between the experimental group and the control group on the social studies achievement pre-test mean score in the categories of application ($t = -2.378$ and $p < .05$), synthesis ($t = -3.014$ and $p < .01$), evaluation ($t = -2.585$ and $p < .01$), and the overall total ($t = -3.646$ and $p < .001$). The pre-test mean scores favoured the con-

³Ibid., p. 402.

TABLE VII

SIGNIFICANCE OF DIFFERENCE BETWEEN THE
EXPERIMENTAL AND CONTROL GROUPS
FOR THE MEANS ON PRE-TEST

	Means		Degrees of Freedom	t	p-Two Tail	p	Significance of Difference
	Exp. Group N = 60	Control Group N = 61					
Social Studies Achievement Pre-test							
Total Score	12.37	14.61	119	-3.646	0.0004	<.001	Highly sig.
Knowledge	1.98	2.20	119	-1.095	0.275	>.05	Not sig.
Comprehension	2.27	2.66	119	-1.884	0.062	>.05	Not sig.
Analysis	2.28	2.26	119	0.089	0.929	>.05	Not sig.
Application	2.53	3.08	119	-2.378	0.018	<.05	Significant
Synthesis	1.83	2.43	119	-3.014	0.003	<.01	Significant
Evaluation	1.47	1.98	119	-2.585	0.011	<.01	Significant

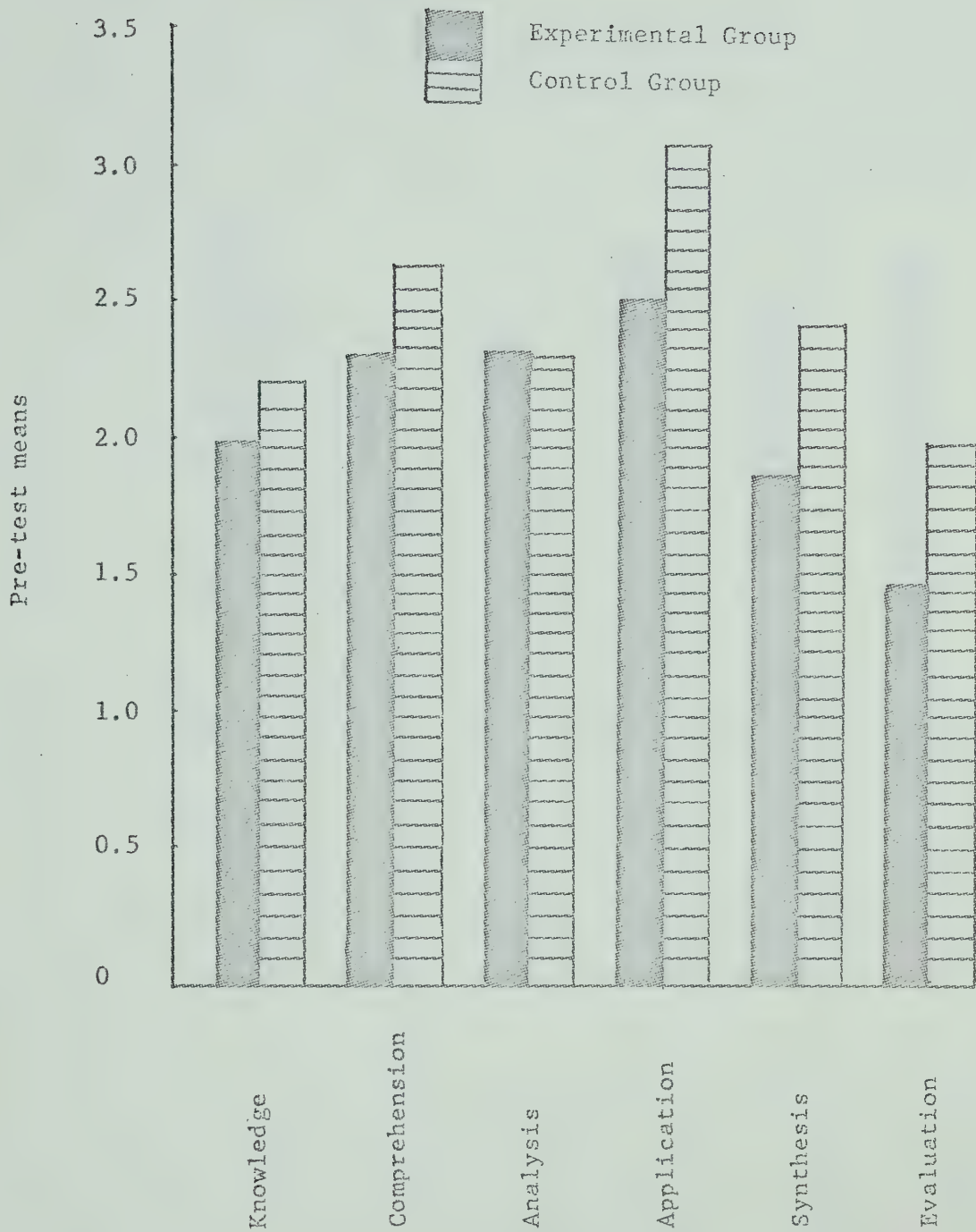


FIGURE I

COMPARISON OF THE EXPERIMENTAL AND THE CONTROL
GROUP SOCIAL STUDIES ACHIEVEMENT
PRE-TEST MEANS

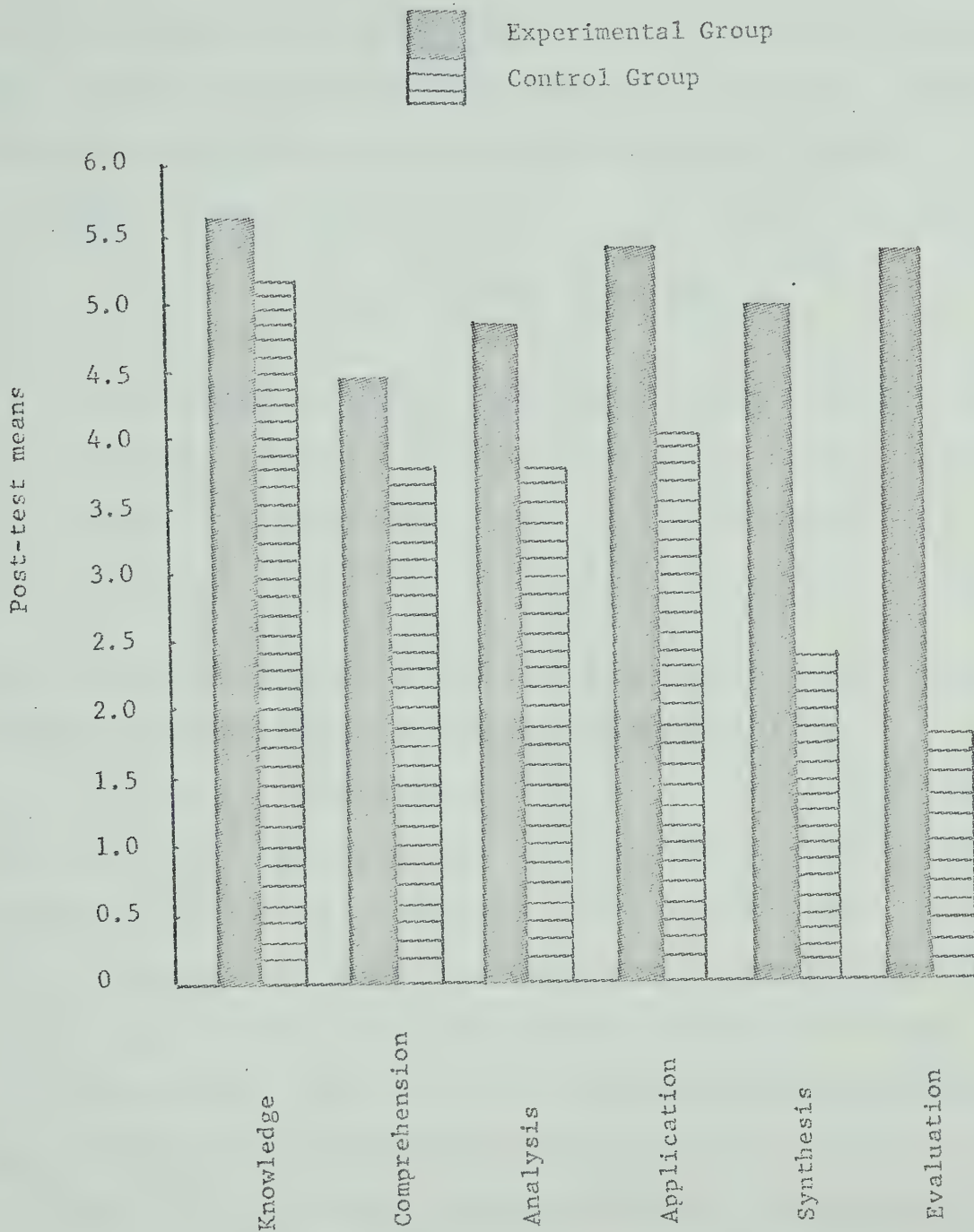


FIGURE II

COMPARISON OF THE EXPERIMENTAL AND THE CONTROL
GROUP SOCIAL STUDIES ACHIEVEMENT
POST-TEST MEANS

trol group whereas the post-test means favoured the experimental group which necessitated the use of the procedure of statistically controlling pre-test differences in performing the regression analysis to test the research hypotheses.

III. ANALYSIS OF THE DATA

The test results were analyzed by means of the regression analysis technique. The MULR05 computer program of the Division of Educational Research Services, University of Alberta was employed to investigate the seven hypotheses postulated in the introductory chapter.

The Difference Between the Experimental Group and the Control Group Means in Growth of Academic Achievement in Social Studies

The major hypothesis stated that there would be no significant difference in the academic achievement of students of grade 10 using historical documents in the classroom and of those not using the historical documents. In order to investigate this hypothesis by means of the analysis of the data, it was restated in statistical terms. It was postulated that there would be no significant difference between the means of the experimental group - using historical documents, and the control group - not using historical documents, on the social studies achievement post-test when adjustments were made for the pre-test and Scholastic Ability Test scores.

The models and the results of the analysis concerning the major hypothesis were presented in Table VIII.

Two models were set up to predict the post-test scores (X_9). The full model, Number One, consisted of pre-test scores (X_2), and Scholastic Ability Test scores (X_{18}). Two categorical vectors (X_{19} and X_{20}) for group membership were generated and used in all full models throughout the program. Model Ten was set up as restricted model which contained pre-test scores (X_2), and the Scholastic Ability Test scores (X_{18}) as predictor variables as did the full model but did not contain group membership variables.

TABLE VIII
COMPARISON OF THE EXPERIMENTAL AND THE
CONTROL GROUPS POST-TEST MEANS IN
SOCIAL STUDIES ACHIEVEMENT

Model Number	Criterion Variables	Computer weights and predictor variables	Squared multiple correlation	F	p.
1	X_9	$= -0.44U + 11.06X_{19} + 0X_{20} + 0.62X_2 + 0.18X_{18} + e$	0.81	260.23	$<.00001$
10	X_9	$= 8.43U + -0.22X_2 + 0.30X_{18} + e$	0.38		

Model One and Model Ten were compared by means of the multiple regression analysis techniques. The obtained F value of 260.23 was highly significant ($p <.00001$) indicating that the rejection of the null hypothesis was warranted. The treatment effects in conjunction with the pre-test and SCAT measures were found to account for 81 per cent of the post-test variance whereas the pre-test and SCAT measures

alone accounted for only 38 per cent of the post-test variance.

On the basis of this analysis of test results, it was concluded that there was a highly significant difference in the academic achievement of the students of the two groups. When adjustments were made for the pre-test and the Scholastic Ability Test scores, the grade 10 students who used historical documents showed significantly higher overall social studies achievement than those who did not use historical documents.

The Difference Between the Experimental Group and the Control Group Means on the Knowledge Sub-test of the Social Studies Achievement Test

The major hypothesis was sub-divided into six minor hypotheses, each testing a different aspect of academic achievement as described in Chapter I. Minor Hypothesis One stated that there would be no significant difference between the experimental group and the control group on the knowledge category of the social studies achievement. For the purpose of analysis, it was re-stated that there would be no significant difference in the mean achievement of knowledge of the experimental group and the control group on the social studies achievement post-test when adjustments were made for pre-test and SCAT scores.

In order to test this hypothesis, two models contained in Table IX were set up.

Model Two (Full) and Model Twenty (Restricted) were set up to predict post-test scores in knowledge achievement (X_{10}). The full model contained the group membership vectors (X_{19} and X_{20}), pre-test

sub-scores in knowledge category (X_3), and SCAT scores (X_{18}). In the restricted model, the group membership vectors were excluded.

TABLE IX
COMPARISON OF THE EXPERIMENTAL AND THE
CONTROL GROUPS POST-TEST MEANS ON
THE KNOWLEDGE SUB-TEST

Model number	Criterion Variables	Computer weights and predictor variables	Squared multiple correlation	F	p
2	X_{10}	$= 1.16U + 0.47X_{19} + 0X_{20} + 0.24X_3 + 0.05X_{18} + e$	0.41	4.31	< 0.05
20	X_{10}	$= 1.39U + 0.21X_3 + 0.05X_{18} + e$	0.39		

The results of comparing Model Two and Model Twenty by means of multiple regression analysis techniques showed that the obtained F value of 4.31 was significant ($p < .05$), indicating the rejection of the null hypothesis. The treatment effects in conjunction with the pre-test and SCAT scores, were found to account for 41 per cent of the post-test variance whereas the pre-test and the SCAT measures alone accounted for only 39 per cent of the post-test variance.

On the basis of the above analysis of test results, it was concluded that there was a significant difference between the means of the experimental group and the control group in knowledge achievement on the social studies achievement post-test. When adjustments were made for the pre-test and the SCAT scores, the experimental group which used the historical documents achieved significantly more knowledge

than the control group which did not use historical documents.

The Difference Between the Experimental Group and the Control Group
Means on the Comprehension Sub-test of the Social Studies Achievement
Test

Minor Hypothesis Two stated that there would be no significant difference in the achievement of comprehension between the experimental group and the control group. Re-stated in terms of test results, this hypothesis postulated that there would be no significant difference between the mean comprehension sub-test scores of the experimental group and the control group on the social studies comprehension section of the post-test when adjustments were made for the pre-test and the SCAT scores.

Using the identical procedures to those above, the data were analyzed to determine the level of significance of difference. The models and the results were summarized in Table X.

Model Three and Model Thirty contained social studies achievement post-test comprehension sub-scores (X_{11}) as the criterion variable. The full model, Model Three consisted of pre-test comprehension sub-scores (X_4) and the SCAT scores (X_{18}) along with two categorical vectors (X_{19} and X_{20}). In the restricted model, Model Thirty, these categorical vectors were excluded to impose restriction.

The comparison of Model Three and Model Thirty by means of multiple regression analysis techniques showed that the obtained F value of 11.05 was significant ($p < .001$). Therefore it clearly signified

the rejection of the null hypothesis. In this case, the treatment effects in conjunction with the pre-test and the SCAT scores, accounted for 46 per cent of the post-test variance whereas the pre-test and the SCAT measures alone accounted for only 41 per cent of the post-test variance.

TABLE X
COMPARISON OF THE EXPERIMENTAL AND THE
CONTROL GROUPS POST-TEST MEANS ON
THE COMPREHENSION SUB-TEST

Model number	Criterion variables	Computer weights and predictor variables	Squared multiple correlation	F	p
3	$X_{11} =$	$-0.35U + 0.75X_{19} + 0X_{20} + 0.31X_4 + 0.05X_{18} + e$	0.46	11.05	<.001
30	$X_{11} =$	$0.01U + 0.23X_4 + 0.05X_{18} + e$	0.41		

When adjustments were made for the pre-test and SCAT scores, the results of the statistical analysis indicated that there was a significant difference between the comprehension performance of students who used the historical documents and those who did not use these documents.

The Difference Between the Experimental Group and the Control Group Means on the Analysis Sub-test of the Social Studies Achievement Test

In Minor Hypothesis Three, it was postulated that there would be no significant difference in the analysis performance of grade 10 stu-

dents using historical documents and those not using historical documents. Thus, as a guide for the statistical analysis of the data, it was hypothesized that there would be no significant difference between the means of the experimental group and the control group on the analysis sub-test of the social studies achievement post-test when adjustments were made for the pre-test and the SCAT scores.

TABLE XI
COMPARISON OF THE EXPERIMENTAL AND THE
CONTROL GROUPS POST-TEST MEANS ON
THE ANALYSIS SUB-TEST

Model number	Criterion variables	Computer weights and predictor variables	Squared multiple correlation	F	p
4	X_{12}	$= 0.22U + 1.03X_{19} + 0X_{20} + 0.27X_5 + 0.04X_{18} + e$	0.45	20.92	<.00001
40	X_{12}	$= 0.66U + 0.27X_5 + 0.04X_{18} + e$	0.35		

In Model Four and Model Forty, social studies achievement post-test analysis sub-scores (X_{12}) were used as the criterion variable. The full model consisted of pre-test analysis sub-scores (X_5) and the SCAT scores (X_{18}) and two group membership vectors - (X_{19} and X_{20}). The restricted model contained only the pre-test analysis sub-scores (X_5) and the SCAT scores (X_{18}). Using the procedure identical to the one used above, Model Four and Model Forty were compared and F value of 20.92 was obtained. As the difference was considered highly sig-

nificant ($p < .00001$), the null hypothesis was rejected. The treatment effects in conjunction with the pre-test and SCAT scores, accounted for 45 per cent of the post-test variance whereas the pre-test and the SCAT measures alone were found to cause only 35 per cent of the post-test variance.

On the basis of the statistical results obtained, it was concluded that after making adjustments for the pre-test and the SCAT scores there was no significant difference between the experimental group and the control group means in the analysis performance on the social studies achievement post-test.

The Difference Between the Experimental Group and the Control Group Means on the Application Sub-test of the Social Studies Achievement Test

Minor hypothesis Number Four stated that there would be no significant difference between the experimental group and the control group on application sub-test in social studies. In terms of test results, it was postulated that when adjustments were made for the pre-test and the SCAT scores, there would be no significant difference between the means of the experimental group and the control group on the application sub-test of the social studies achievement post-test.

The regression analysis was performed to investigate the significance of difference. The models and the results were summarized in Table XII.

The scores on the post-test application sub-category (X_{13}) represented the criterion variable in both full (Model Five) and restricted (Model Fifty) models. The pre-test application sub-scores (X_6) and the SCAT scores (X_{18}) were used along with the two categorical vectors as predictor variables in the full model. These categorical vectors (X_{19} and X_{20}) were eliminated for the purpose of the restricted model in order to impose the desired restriction.

TABLE XII

COMPARISON OF THE EXPERIMENTAL AND THE CONTROL
GROUPS POST-TEST MEANS ON THE
APPLICATION SUB-TEST

Model number	Criterion variables	Computer weights and predictor variables	Squared multiple correlation	F	p
5	X_{13}	$= 0.24U + 1.54X_{19} + 0X_{20} + 0.25X_6 + 0.04X_{18} + e$	0.46	40.41	$<.00001$
50	X_{13}	$= 1.05U + 0.09X_6 + 0.05X_{18} + e$	0.28		

The statistical results were analyzed by comparing Model Five and Model Fifty. The treatment effects in conjunction with the pre-test and the SCAT scores were found to cause 46 per cent of the post-test variance whereas the pre-test and the SCAT scores alone accounted for only 28 per cent of the post-test variance. The calculated F ratio of 40.41 was highly significant ($p < .00001$), warranting the rejection of the null hypothesis.

Keeping the pre-test and the SCAT scores constant, a highly significant difference occurred in application ability between the experimental group and the control group means on the social studies achievement post-test.

The Difference Between the Experimental Group and the Control Group Means on the Synthesis Sub-test of the Social Studies Achievement Test

In the minor hypothesis Number Five, it was postulated that there would be no significant difference between the experimental group and the control group on the synthesis category of the social studies achievement. It was statistically redefined and thus hypothesized that when adjustments were made for the pre-test and the SCAT scores, there would be no significant difference between the experimental group and the control group means on the synthesis sub-test of the social studies achievement post-test.

The regression models, to represent the hypothesis and the results statistically, were compiled in Table XIII.

In full model, Model Six, post-test synthesis sub-score (X_{14}) were used as criterion variable whereas synthesis category sub-scores (X_7), and the SCAT scores (X_{18}) along with the two categorical vectors were employed as predictor variables. In the restricted model, Model Sixty, categorical treatment vectors (X_{19} and X_{20}) used in the full model, were excluded.

As a result of comparing Model Six and Model Sixty by means of multiple regression techniques, it was found that the treatment effects along with the pre-test and the SCAT scores caused 79 per cent of the post-test variance whereas only 7 per cent of the post-test variance was attributable to the pre-test and the SCAT measures. The obtained F ratio of 397.68 was highly significant ($p < .0001$), warranting the rejection of the null hypothesis.

TABLE XIII
COMPARISON OF THE EXPERIMENTAL AND THE
CONTROL GROUPS POST-TEST MEANS
ON THE SYNTHESIS SUB-TEST

Model number	Criterion variables	Computer weights and predictor variables	Squared multiple correlation	F	p
6	X_{14}	$= 0.61U + 2.67X_{19} + 0X_{20} + 0.25X_7 + 0.02X_{18} + e$	0.79	397.68	$< .00001$
60	X_{14}	$= 2.24U + -0.08X_7 + 0.02X_{18} + e$	0.07		

The results of the statistical analysis of the data, as described above, indicated that when adjustments were made for the pre-test and the SCAT scores, there existed a highly significant difference on the synthesis sub-test of the social studies achievement post-test between the experimental group and the control group means.

The Difference Between the Experimental Group and the Control Group
Means on the Evaluation Sub-test of the Social Studies Achievement
Test

In the last minor hypothesis, it was stated that there would be no significant difference on evaluation sub-test between students of grade 10 using the historical documents and those not using the historical documents. In terms of the test results, it was postulated that when the pre-test and the SCAT scores were kept constant, there would be no significant difference between the experimental group and the control group means on evaluation sub-test of the social studies achievement post-test.

The test results for both groups were analyzed to determine the existence of a significant difference. The linear regression models and the results were placed in Table XIV.

To determine the probability of rejecting the null hypothesis of no significant difference between the experimental group and the control group means, Model Seven, the full model, was compared with Model Seventy, the restricted model, by employing multiple regression analysis techniques.

The two models were set up to predict the post-test sub-scores of evaluation category (X_{15}). The full model consisted of pre-test evaluation category sub-scores (X_8), and the Scholastic Ability Test scores (X_{18}) along with the two categorical treatment vectors. The restricted model contained the pre-test evaluation category sub-scores

(X₈) and the Scholastic Ability Test scores (X₁₈) as did the full model. A restriction was imposed by excluding the group membership variables (X₁₉ and X₂₀) from the restricted model.

TABLE XIV
COMPARISON OF THE EXPERIMENTAL AND THE
CONTROL GROUPS POST-TEST MEANS
ON THE EVALUATION SUB-TEST

Model number	Criterion variables	Computer weights and predictor variables	Squared multiple correlation	F	p
7	X ₁₅	= -0.26U + 3.77X ₁₉ + 0X ₂₀ + 0.38X ₈ + 0.02X ₁₈ + e	0.85	644.76	<.00001
70	X ₁₅	= 1.72U + -0.03X ₈ + 0.03X ₁₈ + e	0.05		

The calculated F value of 644.76 was found to be highly significant ($p < .00001$), indicating the rejection of the null hypothesis of no significant difference. It was noted that the treatment effects in conjunction with the pre-test and the Scholastic Ability Test accounted for 85 per cent of the post-test variance whereas the pre-test and the Scholastic Ability Test measure alone accounted for only 5 per cent of the post-test variance.

On the basis of the above statistical analysis of the test data, it was concluded that when adjustments were made for pre-test and SCAT scores, there was a highly significant difference in the means of evaluation performance of the students of grade 10 using the historical documents and of those not using the historical documents.

CHAPTER V

SUMMARY, CONCLUSIONS, LIMITATIONS, IMPLICATIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

I. SUMMARY

The problem of selecting suitable material for use in the classroom has confronted the curriculum designers and educators for a long time. Various opinions have been advanced for the inclusion of different types of materials to obtain more satisfactory results in the classroom. Consequently in recent years, the trend has been towards using historical documents for the teaching of social studies. More and more publishing companies have started publishing such documents. As no study has so far been conducted in Alberta, the investigator designed this investigation to find out the effectiveness of the historical documents on the academic achievement (cognitive domain) of the students.

The investigator suggested a list of twenty-four historical documents pertaining to the ancient history of Greece. Out of these, twelve documents were selected by a committee of three judges on the basis of their suitability to the grade 10 Social Studies classes. The three judges of the committee were teachers who had taught or were teaching Social Studies 10 in the province of Alberta.

Since no standardized test on this part of Greek history was available, the writer constructed an instrument consisting of fifty

multiple-choice items. Item analysis for reliability and difficulty had already been done on each of these fifty items. The writer also classified these items under six categories of cognitive objectives as described by Bloom.¹ Another committee of three judges was selected from the Alberta social studies teachers who verified the validity of this classification and gave its concurrence.

A sample of four classes was selected from a total of six classes of grade 10 Social Studies in the Senior High School of Barrhead, Alberta. Two classes were designated to each of the experimental and the control groups. These groups were matched for means and standard deviations on their Scholastic Ability Test scores taken from a recent test administered by the Department of Education, Alberta. (See Appendix A)

The test constructed by the investigator was administered to both groups as a pre-test in the first week of November, 1969. For a period of six weeks immediately following the administration of this test, the experimental group was taught by introducing historical documents and the control group was taught without using these or any other documents. To control the variables of ability, qualifications and experience, one and the same teacher taught both groups. At the end of six weeks, same test was re-administered as a post-test to both groups.

The test results were analyzed using regression analysis and the

¹B.S. Bloom, Taxonomy of Educational Objectives: Hand Book - Cognitive Domain (New York: David McKay Company, Inc., 1957), pp. 7-144.

MULR05 computer program was employed to investigate the seven hypotheses postulated for the experiment. The post-test results were again analyzed for reliability and DEST02 computer program was utilized to investigate the inter-correlations among the pre-test, Scholastic Ability Test, and post-test scores for the experimental and the control groups separately. The results formed the basis for the conclusions described in the second part of this chapter.

II. CONCLUSIONS

The following conclusions were derived from the analysis of the test results reported in Chapter IV. These conclusions are strictly applicable only to the populations which are identical to those used in this experiment.

1. The use in teaching of the twelve historical documents did produce significantly better results in overall academic achievement in the experimental group as compared to the results in the control group which did not use these documents.

2. The results of the statistical analysis of the data also indicated that the students of grade 10 who used historical documents in the classroom showed highly significant difference in achievement in knowledge, comprehension, analysis, application, synthesis and evaluation as compared to the achievement of those students who did not use historical documents.

3. It was significant to note that the students who did not use the historical documents obtained higher mean scores on the social

studies achievement pre-test but significantly lower mean scores on the social studies achievement post-test. On the other hand, the students who used the historical documents obtained lower mean scores on the social studies achievement pre-test but higher mean scores on the social studies achievement post test as compared to the control group.

4. Most significant difference emerged on the Higher Mental Processes of Bloom's categories. The difference in knowledge achievement was significant at .05 level whereas difference in some other higher mental process categories was as high as to be significant at .00001 level. In other words, the use of historical documents produced significantly higher achievement results in analysis, application, synthesis and evaluation than in knowledge and comprehension categories.

III. LIMITATIONS OF THE STUDY

1. The subject matter taught during the experiment was limited to the study of Ancient Greece - a part of Unit Three of Social Studies 10 program. The duration of the teaching period was also limited to six weeks - the time allowed by the Department of Education, Province of Alberta.² It was felt that the brevity of the material covered and the duration of teaching period might have been possible factors limit-

²Department of Education, Province of Alberta, Program of Studies for Senior High Schools of Alberta (Edmonton: Alberta, 1967), p. 132.

ing the applicability of the results.

2. The experiment involved a relatively small population consisting of only 121 students of grade Ten. The four classes included in the sample were selected on the basis of the fact that they were on the Greek part of the Unit when the experiment began. The other two classes could not be included because they were still on the previous unit of the course. Therefore, under these circumstance, this limitation could not be eliminated. Travers states that unless differences are large enough to be statistically significant with as few as fifty cases in the sample, it would not be of any practical value.³ Although the significance of the difference in each instance was very high, this factor was considered a limitation because each group contained about sixty subjects.

3. The sample was drawn from grade 10 students of Senior High School, Barrhead, Alberta. Therefore, the results of this study are strictly applicable only to an identical sample.

4. The same teacher taught the experimental group as well as the control group. Teacher's bias for the use of historical documents might have been a likely factor affecting the results. Had there been more than one teacher involved, this limitation could have been elimi-

³D.W. Ray, "An Experimental Comparison of the Relative Effectiveness of Two Methods of Teaching the Social Studies in Grade Eleven (1960)", Unpublished Master's Thesis, The University of Alberta, Edmonton, 1952, citing Robert M.W. Travers, An Introduction to Experimental Research (New York: The Macmillan Company, 1958), p. 36.

nated but such an alternative would of course, introduce a more unmanageable variable. But because of the circumstances explained above, it could not be done.

5. The major findings of the experiment were subject to the measuring instrument used to determine the growth of academic achievement in social studies. The social studies achievement test was constructed by the investigator and might have been more sensitive to the experimental group than to the control group in bringing out such highly significant results in favour of the experimental group. The investigator and the judges might have had a tendency to include those items in the social studies achievement test which were biased toward the experimental group.

6. The experimental group might have become more conscious of the fact that they were being taught unconventionally. The novelty of introducing the historical documents might have motivated them to produce better results.

7. The study was designed and limited to finding out the effectiveness of the use of historical documents in relation to the cognitive domain only. Effects on attitudes and interests might have played some part in the end results.

IV. IMPLICATIONS

The results of this study indicate that the use of historical documents in teaching Social Studies to grade 10 students produced

better results than those where the documents were not used. No doubt further research is needed to increase the possibility of applying these results to the entire population of grade 10 social studies students in the province of Alberta, yet these results have some implications for the publishers, teachers and curriculum designers.

The publishers will be producing more publications containing historical documents for the use of social studies teachers in the classrooms. The task of selecting suitable documents for the classroom use will fall on teachers. The task of selecting the documents suitable to the different grade levels will play more significant part and the publishers must depend on the professional advice of the educators. More coordination and cooperation between the publishers and the educators would need to be established.

The results of this study may have an impact on the education and training of the teachers. At present, not every social studies teacher in Alberta is a specialist in history. To be successful in the classroom, social studies teachers have to specialize in the field of history to acquire better background to teach the historical documents in their proper perspective.

The emphasis on the use of historical documents will also have some implications for the curriculum designers. More historical documents have to be incorporated in the text books. The structure of the social studies courses may have to be changed accordingly.

V. RECOMMENDATIONS FOR FURTHER RESEARCH

1. As suggested by the related research, it is likely that the relatively short duration of this experiment and the nature of the subject matter taught in the experiment were too limited. Replication of this study over a longer period covering various types of social studies subject matter of various sizes involving different grade levels may be desirable to further substantiate the results of this study.

2. Further research is required wherein the scope of teacher sample and the population sample may be expanded in relation to numbers and area from which the sample is to be selected. This may make the results of this experiment applicable to a wider area.

3. As indicated in the limitations, the impact of change in attitudes and interests on the results of the study was not investigated. Further research may be undertaken to find out the effects of the use of historical documents in teaching social studies on achievement of objectives in the area of affective domain.

4. The pre-test and the post-test method of comparing the experimental and the control groups has been frequently used in research. Probably, in future experiments, the number of items on the testing instruments may be increased so as to get relatively larger scores on each sub-test. In this study, each sub-test on social studies achievement test contained eight items except one which had ten items.

BIBLIOGRAPHY

BIBLIOGRAPHY

A. BOOKS

- Arnold, R.L., and D.C. Lahey. Inquiry: A Source Book for the Discovery Approach to Social Studies. New York: State University Press, 1965.
- Beard, C.A. A Charter for Social Sciences in the Schools. New York: Charles Scribner's Sons, 1932.
- Berry, G.L. Problems and Values. Toronto: J.M. Dent and Sons, Limited, 1967.
- Bining, A.C., and D.H. Bining. Teaching of the Social Studies in Secondary Schools. New York: McGraw-Hill Book Company, Inc., 1952.
- Bloom, B.S. Taxonomy of Educational Objectives: Handbook I - Cognitive Domain. New York: David McKay Company, Inc., 1965.
- Bruner, J.S. The Process of Education. Cambridge, Massachusetts: Harvard University Press, 1960.
- Butterfield, H. The Whig Interpretation of History. London: G. Bell and Sons Ltd., 1963.
- Childe, V.G. History. London: Cobett Press, 1947.
- Collingwood, R.G. The Idea of History. Oxford: The Clarendon Press, 1946.
- Croce, B. History: Its Theory and Practice. New York: Russell and Russell Inc., 1960.
- Fenton, E. Teaching the New Social Studies in Secondary Schools - An Inductive Approach. New York: Holt, Rinehart and Winston, Inc., 1966.
- Ferguson, G.A. Statistical Analysis in Psychology and Education. New York: McGraw-Hill Book Company, 1966.
- Geddes, J.D. How to Study History. New York: Vantage Press, 1964.
- Guilford, J.P. Fundamental Statistics in Psychology and Education. New York: McGraw-Hill Book Company, 1965.
- Hardwick, F.C. Teaching of History and Geography. Toronto: W.J. Gage Limited, 1964.

- Jeffreys, M.V.C. History in Schools: The Study of Development. London: Sir Isaac Pitman and Sons Ltd., 1959.
- Johnson, H. Teaching of History. New York: The Macmillan Company, 1940.
- Keatinge, N.W. Studies in Teaching History. London: Adam and Charles Black Ltd., 1921.
- Kellum, D.F. American History Through Conflicting Interpretations. New York: Teachers College Press, Columbia University, 1969.
- Kelly, F.J., and others. Multiple Regression Analysis Approach. Carbondale: Southern Illinois University Press, 1969.
- Massialas, B.G., and J. Zevin. Creative Encounters in the Classroom. New York: John Wiley and Sons, Inc., 1967.
- Meiland, J.W. Skepticism and Historical Knowledge. New York: Random House, Inc., 1965.
- Sutherland, N. The Document in the Teaching of History. Vancouver: Teachers' Federation, 1960.
- Taba, H. Teachers' Handbook for Elementary Social Studies. Don Mills: Addison-Wesley Publishing Company, 1967.
- Travers, R.M.W. An Introduction to Experimental Research. New York: The Macmillan Company, 1958.
- Tryon, R.M. Teaching of History in Junior and Senior High Schools. New York: Ginn and Company, 1921.
- Wesley, E.B., and S.P. Woronsky. Teaching of Social Studies in High Schools. Boston: D.C. Heath and Company, 1958.

B. PERIODICALS

- Allen, R.F. "Preserving the Spirit of Original Documents," Social Education, 30: 423-424, October, 1966.
- Allen, R.F. "The Uses of History," Social Education, 31: 291-293, April, 1967.
- Allen, R.F. "The Method and Process of History," The Social Studies, 58: 68-71, February, 1967.

- Andrews, G.G. "The Use of Historical Documents," The Social Studies, 27: 464-469, November, 1936.
- Anthony, A.S. "Pedagogical Limitations of the Source Method Approach to the Teaching of History," The Social Studies, 60: 54, February, 1969.
- Banks, J.A., and E.O. Hogan. "Inquiry: A History Teaching Tool," Illinois School Journal, 48: 176-180, Fall, 1968.
- Banks, J.A. "Utilizing the Historical Method in Social Studies," The Instructor, 77: 104-105, January, 1958.
- Batho, G.R. "Making History Live," The B.C. Teacher, 44: 63-65, November, 1964.
- Bolster, A.S. Jr. "History, Historians and the Secondary School Curriculum," Harvard Education Review, 32: 39-65, Winter, 1962.
- Brown, R.H. "Richard H. Brown Replies," Social Education, 31: 584-587, April, 1967.
- Cartwright, W.H. "The Future of Social Studies," Social Education, 30: 83, February, 1966.
- Crabtree, C.A. "Inquiry Approach: How New and How Valuable?" Social Education, 30: 523-525, November, 1966.
- Fenton, E. "History in the New Social Studies," Social Education, 31: 327, May, 1966.
- Floyd, D.L. "Let Your Students Make History," The Texas Outlook, 51: 32, February, 1967.
- Gold, H. "Methods and the Content of Courses in History in the High Schools of United States," School Review, 25: 274-282, April, 1917.
- Halsey, V.R. "American History: A New High School Course," Social Education, 27: 250, May, 1963.
- Harrison, L.H. "Teaching Research Methods in History," Peabody Journal of Education, 45: 323-325, May, 1968.
- Ingraham, L.W. "Discovery: An Inquiry in History and Social Studies," High Points, 47: 5-8, January, 1965.
- Kranyik, R.D. "The Elementary Classroom as a Human Relations Library," The Social Studies, 57: 61, January, 1966.

- Massialas, B.G., and J. Zevin. "Teaching Social Studies Through Discovery," Social Education, 28: 384-387, 400, December, 1964.
- Moulton, M. "Using Documents in Junior High Schools," Social Education, 26: 310-312, October, 1962.
- Palmer, J.R. "Reply to William H. Cartwright," Social Education, 31: 200, March, 1967.
- Rosen, P. "Helping to Use Documents," The Social Studies, 57: 14-16, January, 1966.
- Schneider, D. "The Historical Method in Teaching History," Peabody Journal of Education, 40: 199-209, January, 1963.
- Seller, C.G. "Is History on the Way Out of the Schools and Do Historians Care?" Social Education, 33: 509-516, May, 1969.
- Stiefeld, S. "Ancient History in High Schools," High Points, 47: 9-13 January, 1965.
- Sutherland, N. "Structure in the History Curriculum," Social Education, 26: 134, March, 1962.
- Tapp, E.T. "Some Thoughts on Teaching History," Australian Journal of Education, 6: 204, October, 1962.
- Templeton, R.I. "The New History," Social Education, 32: 800-803, December, 1968.
- Weaver, R.B. "The Relative Value of Intensive and Extensive Reading in United States History," School Review, 39: 217-226, March, 1931.

C. PUBLICATIONS OF GOVERNMENT, LEARNED SOCIETIES,
AND OTHER ORGANIZATIONS

- Department of Education, Province of Alberta. Program of Studies for Senior High Schools in Alberta. Edmonton: Queen's Printers, 1967.
- Department of Education, Province of Alberta. Senior High Schools Curriculum Guide for Social Studies 10, 20, 30 and 33. Edmonton: Queen's Printers, 1967.
- Department of Education, Province of Alberta. Tentative Course Outline for Social Studies in the Province of Alberta, January, 1969.

Incorporated Association of Assistant Masters in Secondary Schools. The Teaching of History. Cambridge: The University Press, 1958.

Ministry of Education. Pamphlet No. 23. Teaching History. London: H.M.S.O., 1952.

National Council for the Social Studies. Skills in Social Studies. (Twenty-fourth Yearbook) H.M. Carpenter (ed.) Washington: 1953.

National Council for the Social Studies. The Historical Approach to Methods of Teaching the Social Studies. (Fifth Yearbook) R.U. Hilleman (ed.) Philadelphia: McKinley Publishing Company, 1935.

National Council for the Social Studies. Adapting Instruction in the Social Studies to Individual Differences. (Fifteenth Yearbook) E. Krug, and L. Lesler (ed.) Washington: 1944.

D. UNPUBLISHED MATERIALS

Flathman, D. Hypothesis Testing with Multiple-Regression. Unpublished paper. Edmonton: Division of Educational Research Services, University of Alberta, 1968.

Hunka, S. Regression Analysis - Computer Program. Unpublished notes for students. Edmonton: Division of Educational Research Services, University of Alberta, August, 1967.

Ray, R.M.W. "An Experimental Comparison of the Relative Effectiveness of Methods of Teaching the Social Studies in Grade Eleven (1960)." Unpublished Master's Thesis. Edmonton: The University of Alberta, 1952.

Rothstein, H. "An Experiment in Developing Critical Thinking Through the Teaching of American History." Dissertation Abstracts, 21: 1141, November, 1960.

E. NEWSPAPERS

Russell, C. "From the School to the University," The Times Educational Journal Supplement, New York: April 26, 1968, p. 1385.

APPENDICES

APPENDIX A

SCHOLASTIC ABILITY SCORES

SCHOLASTIC ABILITY SCORES

EXPERIMENTAL GROUP

Student I.D. No.	Verbal Ability	Quantitative Ability	Total Score	Student I.D. No.	Verbal Ability	Quantitative Ability	Total Score
101	34	27	61	131	45	22	67
102	24	22	46	132	57	40	97
103	34	14	48	133	54	42	96
104	31	33	64	134	43	26	69
105	37	29	66	135	48	18	66
106	54	38	92	136	34	26	60
107	51	32	83	137*	35	22	57
108	49	25	74	138	17	26	43
109*	30	25	55	139	59	31	90
110	54	36	90	140	35	18	53
111	40	28	68	141	40	18	58
112	37	36	73	142	33	35	68
113	48	42	90	143	32	31	63
114	34	12	46	144	47	27	74
115	52	34	86	145	48	25	73
116	34	34	68	146	34	10	44
117	54	41	95	147	49	35	84
118	41	18	59	148	35	26	61
119	41	41	82	149	46	36	82
120	58	43	101	150	18	10	28
121	32	25	57	151	53	41	94
122	23	14	37	152	23	13	36
123	38	19	57	153	47	29	76
124	41	36	77	154	26	21	47
125	52	28	80	155	53	42	95
126	26	27	53	156*	24	18	42
127	44	33	77	157	44	21	65
128	30	16	46	158	47	41	88
129	48	38	86	159	47	38	85
130	32	34	66	160	48	24	72

*Scores not available at the time of matching groups.

SCHOLASTIC ABILITY SCORES

CONTROL GROUP

Student I.D. No.	Verbal Ability	Quantitative Ability	Total Score	Student I.D. No.	Verbal Ability	Quantitative Ability	Total Score
201	40	23	63	232	46	37	83
202	51	31	82	233	39	31	70
203	42	37	79	234	49	21	70
204	44	25	69	235	28	20	48
205	52	38	90	236	35	20	55
206	47	19	66	237	16	24	40
207	43	37	80	238	33	11	44
208	16	27	43	239	21	17	38
209	46	28	74	240	50	18	68
210	33	24	57	241	48	21	69
211	31	26	57	242	26	17	43
212	44	33	77	243	40	31	71
213	54	41	95	244	29	23	52
214	50	33	83	245	48	31	79
215	39	32	71	246	23	33	56
216*	42	26	68	247	28	30	58
217	35	23	58	248	57	43	100
218	44	29	73	249	32	10	42
219	29	32	61	250	52	39	91
220	26	15	41	251	45	18	63
221	48	38	86	252	53	25	78
222	49	29	78	253	32	13	45
223	35	14	49	254	33	30	63
224	50	27	77	255	58	42	100
225	49	19	68	256	44	32	76
226	24	26	50	257	44	39	83
227	49	42	101	258	33	33	66
228	52	41	93	259	36	14	50
229	43	33	76	260	44	23	67
230	57	36	93	261	24	19	43
231	33	11	44				

*Scores not available at the time of matching groups.

APPENDIX B
HISTORICAL DOCUMENTS

DOCUMENT I

THE TOMBS AT MYCENAE

It is with extreme joy that I announce to Your Majesty my discovery of the tombs which tradition, echoed by Pausanias, has designated as the sepulchres of Agamemnon, Cassandra, Eurymedon and all their companions, who were killed while dining with Clytemnestra and her lover Aegisthus. They were surrounded with a double circle of stone slabs, which would not have been set up unless they were great personages. In the tombs I found immense treasures of the most ancient objects of pure gold. These treasures, the most wonderful the world has seen, will fill a great museum, and for generations to come thousands of travellers will flock to Greece to see them. Since I work only for the love of knowledge, I would naturally make no claim to these treasures. I leave them here, intact, for Greece. The Lord would wish these treasures to become part of the immense national patrimony of Greece!

Henry Schliemann

From Henry Schliemann, Mycenae and Tiryns, p. 365. London: John Murray, 1878.

DOCUMENT II

ADVENTURES OF ULYSSES

THEN ODYSSEUS BEGAN HIS TALE:

"What a pleasure it is, my lord," he said, "to hear a singer like this, with a divine voice! I declare it is just the perfection of gracious life: good cheer and good temper everywhere, rows of guests enjoying themselves heartily and listening to the music, plenty to eat on the table, wine ready in the great bowl, and the butler ready to fill your cup whenever you want it. I think that is the best thing men can have.-But you have a mind to hear my sad story, and make me more unhappy than I was before. What shall I begin with, what shall I end with? The lords of heaven have given me sorrow in abundance.

"First of all I will tell you my name, and then you may count me one of your friends if I live to reach my home, although that is far away. I am Odysseus Laertiades, a name well known in the world as one who is ready for any event. My home is Ithaca, that bright conspicuous

isle, with Mount Neriton rising clear out of the quivering forests. Round it lie many islands clustering close, Dulichion and Same and woody Zacynthos. My island lies low, last of all in the sea to westward, the others away towards the dawn and the rising sun. It is rough, but a nurse of good lads; I tell you there is no sweeter sight any man can see than his own country. Listen now: a radiant goddess Calypso tried to keep me by her in her cave, and wanted me for a husband; Circe also would have me stay in her mansion, and a clever creature she was, and she also wanted me for a husband, but she never could win my heart. How true it is that nothing is sweeter than home and kindred, although you may have a rich house in a foreign land far away from your kindred! Ah well, but you are waiting to hear of my journey home, and all the sorrows which Zeus laid upon me after I left Troy.

"From Ilion the wind carried me to Ismaros of the Ciconians. There I destroyed the city and killed the men. We spared the women and plenty of cattle and goods, which we divided to give each man a fair share. I told the men we must show a light heel and be off, but the poor fools would not listen. Plenty of wine was drunk, plenty of sheep were killed on that beach, and herds of cattle! Meanwhile some of the enemy got away and shouted to other Ciconians, neighbours of their inland, more men and better men, who knew how to fight from the chariot against a foe, and on foot if need be.

"A multitude of these men swarmed down early in the morning, as many as leaves and flowers in the season of the year. Surely Zeus sent us a hard fate that day, to bring trouble on a lot of poor devils! They drew up near the ships, and then came volleys on both sides. All through the morning while the day grew stronger we stood our ground and held them off, although they outnumbered us; but when the sun began to change course, about ox-loosing time, the Ciconians got the upper hand and bent our line. Six men-at-arms from each vessel were killed; and the rest of us were saved alive.

"From that place we sailed onward much discouraged but glad to have escaped death, although we had lost good companions. Yet we did not let the galleys go off, until we had called thrice on the name of each of our hapless comrades who died in that place. But Zeus Cloud-gatherer sent a norwester upon our fleet with a furious tempest, bringing clouds over land and sea; and night rushed down from the sky. The ships were blown plunging along, the sails were split into shreds and tatters by the violence of the wind. We let down the sails in fear of death, and rowed the bare hulls to shore. There we lay two days and two nights on end, eating out our hearts with hardship and anxiety. But when the third day showed welcome streaks of light, we stept the masts and hoisted new sails, and sat still, while the wind drove us on and the steersman held the way. Then I might have come safe to my native land, but the sea and the current and the north-west wind caught me as I was doubling Cape Malea, and drifted me outside Cythera.

"Nine days after that I was beaten about on the sea by foul winds, and on the tenth day we made land in the country of the lotus-eaters,

who get their food from flowers. We went ashore and took in water, and the men made their meal on the spot close to the ships. When we had eaten and drunk, I sent some of them to find out who the natives were: two picked men with a speaker. Before long they came across some of the lotus-eaters. However, they did no harm to the men, only gave them some of their lotus to eat. As soon as they tasted that honey-sweet fruit, they thought no more of coming back to us with news, but chose rather to stay there with the lotus-eating natives, and chew their lotus, and good-bye to home. I brought them back to the ships by main force, grumbling and complaining, and when I had them there, tied them up and stowed them under the benches. Then I ordered the rest to hurry up and get aboard, for I did not want them to have a taste of lotus and say good-bye to home. They were soon on board and sitting on their benches, and rowing away over the sea.

"From that place we sailed on in low spirits. We came next to the Cyclopians, the Goggle-eyes, a violent and lawless tribe. They trust to providence, and neither plant nor plow, but everything grows without sowing or plowing; wheat and barley and vines, which bear grapes in huge bunches, and the rain from heaven makes them grow of themselves. These Cyclopians have no parliament for debates and no laws, but they live on high mountains in hollow caves; each one lays down the law for wife and children, and no one cares for his neighbours.

"Now a low flat island lies across their harbour, not very near the land and not very far, covered with trees. In this are an infinite number of wild goats, for no man walks there to scare them away, and no hunters frequent the place to follow their toilsome trade in the forests and the hills. So it has neither flocks nor tillage; but unsown and unplowed, untrodden of men, it feeds the bleating goats. For the Goggle-eyes have no ships with their crimson cheeks, and no shipwrights among them, to build boats for them to row in and visit the cities of the world, like men who traverse the seas on their lawful occasions. Such craftsmen might have civilized the island: for it is not a bad island. It could produce all the kindly fruits of the earth; there are meadows along the shore, soft land with plenty of water; there might be no end of grapes. There is smooth land for the plow; the soil is very rich, and they might always stack a good harvest in the season of the year. There is a harbour with easy riding; no cable is wanted, no anchor-stones or stern-hawsers. You just beach your ship, and stay till the sailors have a fancy to go and the wind blows fair. Moreover, at the head of the harbour there is glorious water, a spring running out of a cave, with poplars growing all round.

"Some providence guided us in through the dark night, with not a thing to be seen; for a thick mist was about our ships and the moon showed no light through the clouds. At that time we did not catch a glimpse of the island: indeed we saw no long breakers rolling towards the land, before our ships ran up on the beach. When they were safe there, we lowered the sails and got out on the shore, and slept heavily until the dawn.

"As soon as dawn gleamed through the mist, we roamed about and admired the island. Then those kindly daughters of Zeus, the Nymphs, sent down goats from the hills to give us all a good meal. We lost no time, got our bows and long spears out of the ships, divided into three bands, and let fly at the quarry. Very soon God gave us as much as we wanted. I had twelve ships with me, and nine goats were given to each by lot, but ten were picked out for me alone. So all day long we sat there feasting, with plenty of meat and delicious wine. For the good red wine was not all used up yet, but some was left; when we took the Ciconian city, each crew had supplied themselves with plenty in large two-handled jars. We gazed at the country of the Goggle-eyes, which was quite close; we could see the smoke and hear the bleating of sheep and goats. When the sun set and darkness came, we lay down on the beach to sleep.

"But with the first rosy streaks of the dawn, I called a meeting and made a speech to the men. 'My good fellows,' I said, 'the rest of you stay here, while I take my ship and crew and see who these people are; whether they are wild savages who know no law, or hospitable men who know right from wrong.'

"So I went aboard and told my crew to cast loose; they were soon in their places and rowing along. The land was not far off, and when we reached it we saw a cave there on a headland close by the sea, high and shaded with laurels, in which numbers of animals were housed by night, both sheep and goats. Outside was an enclosure with high walls round it, made of great stones dug into the earth and the trunks of tall pines and spreading oaks. These were the night-quarters of a monstrous man, who was then tending his flocks a long way off by himself; he would not mix with the others, but kept apart in his own lawless company. Indeed he was a wonderful monster, not like a mortal man who eats bread, but rather like a mountain peak with trees on the top standing up alone in the highlands...."

From Homer, The Odyssey, Book IX, pp. 100-103 translated by W.H.D. Rouse, New York: The New American Library, 1937.

DOCUMENT III

CONTRAST OF ATHENIAN AND SPARTAN CHARACTERS

The Corinthians waited until the other allies had stirred up the Lacedaemonians; at length they came forward, and, last of all, spoke as follows: -

'...Of all Hellenes, Lacedaemonians, you are the only people who never do anything: on the approach of an enemy you are content to defend

yourselves against him, not by acts, but by intentions, and seek to overthrow him, not in the infancy but in the fulness of his strength. How came you to be considered safe? That reputation of yours was never justified by facts. We all know that the Persian made his way from the ends of the earth against Peloponnesus before you encountered him in a worthy manner; and now you are blind to the doings of the Athenians, who are not at a distance as he was, but close at hand. Instead of attacking your enemy, you wait to be attacked, and take the chances of a struggle which has been deferred until his power is doubled. And you know that the Barbarian miscarried chiefly through his own errors; and that we have oftener been delivered from these very Athenians by blunders of their own, than by any aid from you. Some have already been ruined by the hopes which you inspired in them; for so entirely did they trust you that they took no precautions themselves. These things we say in no accusing or hostile spirit - let that be understood - but by way of expostulation. For men expostulate with erring friends, they bring accusation against enemies who have done them a wrong.

'And surely we have a right to find fault with our neighbours, if any one ever had. There are important interests at stake to which, as far as we can see, you are insensible. And you have never considered what manner of men are these Athenians with whom you will have to fight, and how utterly unlike yourselves. They are revolutionary, equally quick in the conception and in the execution of every new plan; while you are conservative - careful only to keep what you have, originating nothing, and not acting even when action is most necessary. They are bold beyond their strength; they run risks which prudence would condemn; and in the midst of misfortune they are full of hope. Whereas it is your nature, though strong, to act feebly; when your plans are most prudent, to distrust them; and when calamities come upon you, to think that you will never be delivered from them. They are impetuous, and you are dilatory; they are always abroad, and you are always at home. For they hope to gain something by leaving their homes; but you are afraid that any new enterprise may imperil what you have already. When conquerors, they pursue their victory to the utmost; when defeated, they fall back the least. Their bodies they devote to their country as though they belonged to other men; their true self is their mind, which is most truly their own when employed in her service. When they do not carry out an intention which they have formed, they seem to themselves to have sustained a personal bereavement; when an enterprise succeeds, they have gained a mere instalment of what is to come; but if they fail, they at once conceive new hopes and so fill up the void. With them alone to hope is to have, for they lose not a moment in the execution of an idea. This is the lifelong task, full of danger and toil, which they are always imposing upon themselves. None enjoy their good things less, because they are always seeking for more. To do their duty is their only holiday, and they deem the quiet of inaction to be as disagreeable as the most tiresome business. If a man should say of them, in a word, that they were born neither to have peace themselves nor to allow peace to

other men, he would simply speak the truth.

'In the face of such an enemy, Lacedaemonians, you persist in doing nothing. You do not see that peace is best secured by those who use their strength justly, but whose attitude shows that they have no intention of submitting to wrong. Justice with you seems to consist in giving no annoyance to others and in defending yourselves only against positive injury. But this policy would hardly be successful, even if your neighbours were like yourselves; and in the present case, as we pointed out just now, your ways compared with theirs are old-fashioned. And, as in the arts, so also in politics, the new must prevail over the old. In settled times the traditions of government should be observed: but when circumstances are changing and men are compelled to meet them, much originality is required. The Athenians have had a wider experience, and therefore the administration of their state, unlike yours, has been greatly reformed.'

From Thucydides, Book I. 67; 69-71, translated by Benjamin Jowett.

DOCUMENT IV

PERICLES IN PRAISE OF ATHENS

...Before I praise the dead, I should like to point out those principles which have guided our rise to power and describe the institutions and way of life which have made our empire great. For I believe such thoughts are appropriate to the occasion and the citizens and foreigners gathered here may profit from them.

No other form of government rivals our own institutions. We have not copied the governments of our neighbors, but rather, have set an example for them. We are called a democracy because the power to make laws is given to many rather than a few. But while the law gives equal justice to everyone, it has not failed to reward excellence. While every citizen has an equal opportunity to serve the public, we reward our most distinguished citizens by asking them to make our political decisions. Nor do we discriminate against the poor. A man may serve his country no matter how low his position on the social scale. We do not allow secrecy in our public affairs, and in our private relations with our fellow citizens, we are not suspicious of one another. We do not become angry with our neighbor if he does what he likes...While we are tolerant of how our neighbor acts, we approach our public duties with reverence. We are prevented from doing wrong out of respect for the authorities and the laws. And we especially respect laws which are designed to protect those who have been injured.

We have not forgotten that we must provide for our spiritual

needs and for relaxation from toil. We have regular games and ceremonies throughout the year. We pride ourselves in making beautiful and elegant homes. And the delight we feel in all these things helps to keep us happy. Because our city is so great, the fruits of the whole earth are brought to Athens so that we enjoy the goods of other countries as well as our own.

Our military training is also superior to that of our enemies in many respects. Our city is thrown open to the world. We have never expelled a foreigner nor prevented him from seeing or learning anything that might help him defeat us if he became our enemy. We do not rely upon controlling the lives of our citizens and tricking our neighboring cities to assure victory. Instead, we depend on the patriotism of our hearts and the skills of our hands. And in the matter of education, while the Spartans compel their youths to live lives of hardship and labor to make them brave, we live an easy life. Yet, we are equally ready to face the perils of battle as they are. And here is the proof: The Spartans come to Athens not by themselves, but with all of their allies. At the same time we seldom have difficulty defeating them in their own country, even though they are fighting for their homes. Our enemies have never had to face our entire military force. We have had to divide our men among our navy and several separate armies on land. When our enemies defeat a part of our army, they are as proud as if they had routed all of us, and when they are defeated, they pretend that our entire army vanquished them.

If we prefer to prepare for danger with a light heart rather than with laborious training, and if we gain our courage through force of habit rather than by force of law, do we not gain much? We do not devote our entire attention to getting ready for war, but when the hour comes we are as brave as those who never rest in preparing for battle. Therefore, our city is an excellent place to live when we are at peace as well as when we are at war. For we are lovers of the beautiful, yet we have simple tastes. We cultivate the mind without losing our manliness. We use our wealth for our real needs, not for luxuries which will give us false prestige. To be poor is no disgrace; the true disgrace is doing nothing to avoid poverty.

An Athenian citizen does not put his private affairs before affairs of the state; even our merchants and businessmen know something about politics. We alone believe that a man who takes no interest in public affairs is more than harmless - he is useless. And if few of us have the imagination to develop new policies, we all are sound judges of the policies proposed by others. Though some of our enemies believe that discussing and debating a policy prevents taking action when it is necessary, we believe that the greatest barrier to action is not knowing enough about an issue before acting. Athenians have that peculiar ability to think before they act, but we do not allow thinking to interfere with acting. Other men either act without thinking or hesitate to act if they think. But Athenians will act after debating an issue, even though they realize that they may be giving up all the pleasures

of life our city provides them....

We are also unlike other cities when it comes to doing good. We make our friends by doing favors for them, not by receiving favors. Now he who does a favor for someone else is the better friend. We do good to our neighbors not because we want them to repay us in our own time of need but because we are men of good will.

To sum up, I say that Athens is the school for all of Greece. The individual Athenian seems to have the ability to adapt himself to all types of conditions and to undertake any project with grace. This is the truth and the fact. Athens, in her hour of trial, is superior to what her enemies think of her. No enemy has been ashamed to suffer defeat at the hands of the Athenians. Our enemies know that we are powerful and to have fought bravely against us is to have done well. And our city shall always be remembered. There are mighty monuments of our power which are the wonders of our age and will be the wonders of ages to come. We shall not need a Homer or any other poet to praise us, for we have compelled every land and every sea to yield to our valor. Everywhere we have left memorials of our friendship and our enmity. Such is the city for whose sake these men nobly fought and died. They could not bear the thought that Athens might be taken over by the Spartans. Everyone of us who survives should, like them, gladly toil for Athens....

Such was the purpose of these men. They were worthy of Athens, and we who live cannot have a more heroic spirit than they, although we can pray for a less fatal outcome. The value of such a spirit cannot be expressed in words. Instead of listening to discourses on the advantages of bravery, I would have you day by day fix your eyes on the greatness of Athens, until you become filled with love for her. When you are impressed by the spectacle of her glory, remember that our empire has been acquired by men who knew their duty and had the courage to do it, who feared dishonor more than death in an hour of conflict, and who would freely give their lives, even when they failed to win. The sacrifice which they made has been repaid to each of them, for each has received our praise, and each has been given the noblest of sepulchers (tombs). I do not speak of those sepulchers in which their bones are laid, but of those in which their glory survives and is proclaimed always and on every fitting occasion in word and deed. For the whole earth is the sepulcher of famous men. Not only is their memory honored by columns, memorial tablets, and statues in their own country, but in every foreign land there is an unwritten memorial to them, graven not on stone, but in the hearts of men. Make them your examples, and, knowing courage means freedom and freedom means happiness, do not worry over the perils of war....

From Thucydides, History of Peloponnesian War, translated by Benjamin Jowett.

DOCUMENT V

WHAT IS A LAW?

...Indeed, there is a story told of Alcibiades, that, when he was less than twenty years old, he had a talk about laws with Pericles, his guardian, the first citizen in the State.

"Tell me, Pericles," he said, "can you teach me what a law is?"

"Certainly," he replied.

"Then pray teach me. For whenever I hear men praised for keeping the laws, it occurs to me that no one can really deserve that praise who does not know what a law is."

"Well, Alcibiades, there is no great difficulty about what you desire. You wish to know what a law is. Laws are all the rules approved and enacted by the majority in assembly, whereby they declare what ought and what ought not to be done."

"Do they suppose it is right to do good or evil?"

"Good of course, young man, - not evil."

"But if, as happens under an oligarchy, not the majority, but a minority meet and enact rules of conduct, what are these?"

"Whatsoever the sovereign power in the State, after deliberation, enacts and directs to be done is known as a law."

"If then, a despot, being the sovereign power, enacts what the citizens are to do, are his orders also a law?"

"Yes, whatever a despot as ruler enacts is also known as a law."

"But force, the negation of law, what is that, Pericles? Is it not the action of the stronger when he constrains the weaker to do whatever he chooses, not by persuasion, but by force?"

"That is my opinion."

"Then whatever a despot by enactment constrains the citizen to do without persuasion, is the negation of law?"

"I think so: and I withdraw my answer that whatever a despot enacts without persuasion is a law."

"And when the minority passes enactments, not by persuading the majority, but through using its power, are we to call that force or not?"

"Everything, I think, that men constrain others to do 'without persuasion,' whether by enactment or not, is not law, but force."

"It follows then, that whatever the assembled majority, through using its power over the owners of property, enacts without persuasion is not law, but force?"

"Alcibiades," said Pericles, "at your age, I may tell you, we, too, were very clever at this sort of thing. For the puzzles we thought about and exercised our wits on were just such as you seem to think about now."

"Ah, Pericles," cried Alcibiades, "if only I had known you in-

timately when you were at your cleverest in these things!"

From Xenophon, Memorabilia, I, ii, 40-46, translated by E.C. Marchant. Cambridge, Mass.: Harvard University Press.

DOCUMENT VI

PERICLES' FUNERAL ORATION

Our form of government does not enter into rivalry with the institutions of others. We do not copy our neighbors, but are an example to them. It is true that we are called a democracy, for the administration is in the hands of the many and not of the few. But while the law secures equal justice to all alike in their private disputes, the claim of excellence is also recognized; and when a citizen is in any way distinguished, he is preferred to the public service, not as a matter of privilege, but as the reward of merit. Neither is poverty a bar, but a man may benefit his country whatever be the obscurity of his condition. There is no exclusiveness in our public life, and in our private intercourse we are not suspicious of one another, nor angry with our neighbour if he does what he likes; we do not put on sour looks at him which, though harmless, are not pleasant. While we are thus unconstrained in our private intercourse, a spirit of reverence pervades our public acts; we are prevented from doing wrong by respect for authority and for the laws, having an especial regard to those which are ordained for the protection of the injured as well as to those unwritten laws which bring upon the transgressor of them the reprobation of the general sentiment.

And we have not forgotten to provide for our weary spirits many relaxations from toil; we have regular games and sacrifices throughout the year; at home the style of our life is refined; and the delight which we daily feel in all these things helps to banish melancholy. Because of the greatness of our city the fruits of the whole earth flow in upon us; so that we enjoy the goods of other countries as freely as our own.

Then again, our military training is in many respects superior to that of our adversaries. Our city is thrown open to the world, and we never expel a foreigner or prevent him from seeing or learning anything of which the secret if revealed to an enemy might profit him. We rely not upon management or trickery, but upon our own hearts and hands. And in the matter of education, whereas they from early youth are always undergoing laborious exercises which are to make them brave, we live at ease, and yet are equally ready to face the perils which they face. And here is the proof. The Lacedaemonians come into Attica not by themselves, but with their whole confederacy following; we go alone into a neighbour's country; and although our opponents are fighting for their

homes and we on a foreign soil, we have seldom any difficulty in overcoming them. Our enemies have never yet felt our united strength; the care of a navy divides our attention, and on land we are obliged to send our own citizens everywhere. But they, if they meet and defeat a part of our army, are as proud as if they had routed us all, and when defeated they pretend to have been vanquished by us all.

If then we prefer to meet danger with a light heart but without laborious training, and with a courage which is gained by habit and not enforced by law, are we not greatly the gainers? Since we do not anticipate the pain, although, when the hour comes, we can be as brave as those who never allow themselves to rest; and thus too our city is equally admirable in peace and in war. For we are lovers of the beautiful, yet with economy, and we cultivate the mind without loss of manliness. Wealth we employ, not for talk and ostentation, but when there is a real use for it. To avow poverty with us is no disgrace; the true disgrace is in doing nothing to avoid it. An Athenian citizen does not neglect the state because he takes care of his own household; and even those of us who are engaged in business have a very fair idea of politics. We alone regard a man who takes no interest in public affairs, not as harmless, but as a useless character; and if few of us are originators, we are all sound judges of a policy. The great impediment to action is, in our opinion, not discussion, but the want of that knowledge which is gained by discussion preparatory to action. For we have a peculiar power of thinking before we act and of acting too, whereas other men are courageous from ignorance but hesitate upon reflection. And they are surely to be esteemed the bravest spirits who, having the clearest sense both of the pains and the pleasures of life, do not on that account shrink from danger. In doing good, again, we are unlike others; we make our friends by conferring, not by receiving favours. Now he who confers a favour is the firmer friend, because he would fain by kindness keep alive the memory of an obligation; but the recipient is colder in his feelings, because he knows that in requiting another's generosity he will not be winning gratitude but only paying a debt. We alone do good to our neighbours not upon a calculation of interest, but in the confidence of freedom and in a frank and fearless spirit.

To sum up: I say that Athens is the school of Hellas, and that the individual Athenian in his own person seems to have the power of adapting himself to the most varied forms of action with the utmost versatility and grace. This is no passing and idle word, but truth and fact; and the assertion is verified by the position to which these qualities have raised the state. For in the hour of trial Athens alone among her contemporaries is superior to the report of her. No enemy who comes against her is indignant at the reverses which he sustains at the hands of such a city; no subject complains that his masters are unworthy of him. And we shall assuredly not be without witnesses; there are mighty monuments of our power which will make us the wonder of this and of succeeding ages; we shall not need the praises of Homer or of any other panegyrist whose poetry may please for the moment, although his

representation of the facts will not bear the light of day. For we have compelled every land and every sea to open a path for our valour, and have everywhere planted eternal memorials of our friendship and of our enmity. Such is the city for whose sake these men nobly fought and died; they could not bear the thought that she might be taken from them; and every one of us who survive should gladly toil on her behalf.

Such was the end of these men; they were worthy of Athens, and the living need not desire to have a more heroic spirit, although they may pray for a less fatal issue. The value of such a spirit is not to be expressed in words. Any one can discourse to you for ever about the advantages of a brave defence which you know already. But instead of listening to him I would have you day by day fix your eyes upon the greatness of Athens, until you become filled with the love of her; and when you are impressed with the spectacle of her glory, reflect that this empire has been acquired by men who knew their duty and had the courage to do it, who in the hour of conflict had the fear of dishonour always present to them, and who, if ever they failed in an enterprize, would not allow their virtues to be lost to their country, but freely gave their lives to her as the fairest offering which they could present at her feast. The sacrifice which they collectively made was individually repaid to them; for they received again each one for himself a praise which grows not old, and the noblest of all sepulchres - I speak not of that in which their remains are laid, but of that in which their glory survives, and is proclaimed always and on every fitting occasion both in word and deed. For the whole earth is the sepulchre of famous men; not only are they commemorated by columns and inscriptions in their own country, but in foreign lands there dwells also an unwritten memorial of them, graven not in stone but in the hearts of men....

From Thucydides, Book II. 37-41; 43, translated by Benjamin Jowett.

DOCUMENT VII

CRITO'S DIALOGUE WITH SOCRATES

...From these premisses I proceed to argue the question whether it is or is not right for me to try and escape without the consent of the Athenians: and if I am clearly right in escaping, then I will make the attempt; but if not, I will abstain. The other consideration which you mention, of money and of loss of character and the duty of educating one's children, are, I fear, only the doctrines of the multitude, who would be as ready to restore people to life, if they were able, as they are to put them to death - and with as little reason.... The only question which remains to be considered is, whether we shall do rightly,

I by escaping and you by helping me...; or whether in reality we shall not do rightly; and if the latter, then death or any other calamity which may ensue on my remaining quietly here must not be allowed to enter the calculation....

(Then Socrates, speaking through the voice of the laws of Athens, asks himself these questions.)

'Has a philosopher like you failed to discover that our country is more precious and higher and holier far than mother or father or any ancestor, and more to be regarded in the eyes of the gods and of men of understanding?... And when we are punished by her, whether with imprisonment or stripes, the punishment is to be endured in silence; and if she lead us to wounds or death in battle, thither we follow as is right; neither may anyone yield or retreat or leave his rank, but whether in battle or in a court of law, or in any other place, he must do what his city or his country order him; or he must change their view of what is just: and if he may do no violence to his father or mother, much less may he do violence to his country.' What answer shall we make to this, Crito? Do the laws speak truly or do they not?

CRITO. I think that they do.

(Then Socrates says that the laws argue that he has made an implied agreement with them which he is not free to break. The laws, through the voice of Socrates, continue as follows:)

'Listen, then, Socrates, to us who have brought you up. Think not of life and children first, and of justice afterwards, but of justice first, that you may so vindicate yourself before the princes of the world below. For neither will you nor any that belong to you be happier or holier or juster in this life, or happier in another if you do as Crito bids. Now you depart, if it must be so, in innocence, a sufferer and not a doer of evil; a victim, not of the laws, but of men. But if you leave the city, basely returning evil for evil and injury for injury, breaking the covenants and agreements which you have made with us, and wrongdoing those whom you ought least of all to wrong, that is to say, yourself, your friends, your country, and us, we shall be angry with you while you live....'

This, dear Crito, is the voice which I seem to hear murmuring in my ears, like the sound of a flute in the ears of a mystic; that voice, I say, is humming in my ears, and prevents me from hearing any other. Be assured then, that anything more which you may say to shake this my faith will be said in vain. Yet speak, if you have anything to say.

CRITO. I have nothing to say Socrates.

SOCRATES. It is enough then, Crito. Let us fulfil the will of God and follow whither he leads.

From The Dialogues of Plato, translated by Benjamin Jowett.

DOCUMENT VIII

THE PEACE OF NICIAS

After the battle of Amphipolis and the return of Rhamphias from Thessaly, neither side undertook any military operations. Both alike were inclined to peace. The Athenians had been beaten at Delium, and shortly afterwards at Amphipolis; and so they had lost that confidence in their own strength which had indisposed them to treat at a time when temporary success seemed to make their final triumph certain. They were afraid too that their allies would be elated at their disasters, and that more of them would revolt; they repented that after the affair at Pylos, when they might honourably have done so, they had not come to terms. The Lacedaemonians on the other hand inclined to peace because the course of the war had disappointed their expectations. There was a time when they fancied that, if they only devastated Attica, they would crush the power of Athens within a few years; and yet they had received a blow at Sphacteria such as Sparta had never experienced until then; their country was continually ravaged from Pylos and Cythera; the Helots were deserting, and they were always fearing lest those who had not deserted, relying on the help of those who had, should seize their opportunity and revolt, as they had done once before. Moreover, the truce for thirty years which they had made with Argos was on the point of expiring; the Argive were unwilling to renew it unless Cynuria was restored to them, and the Lacedaemonians deemed it impossible to fight against the Argives and the Athenians combined. They suspected also that some of the Peloponnesian cities would secede and join the Argives, which proved to be the case.

. . . .

...Negotiations were commenced during the winter. Towards spring the Lacedaemonians sounded a note of preparation by announcing to the allies that their services would be required in the erection of a fort; they thought that the Athenians would thereby be induced to listen to them. At the same time, after many conferences and many demands urged on both sides, an understanding was at last arrived at that both parties should give up what they had gained by arms. The Athenians, however, were to retain Nisaea, for when they demanded the restoration of Plataea the Thebans protested that they had obtained possession of the place not by force or treachery, but by agreement; to which the Athenians rejoined that they had obtained Nisaea in the same manner. The Lacedaemonians then summoned their allies; and although the Boeotians, Corinthians, Eleans, and Megarians were dissatisfied, the majority voted for peace. And so the peace was finally concluded and ratified by oaths and libations, the Lacedaemonians binding themselves to

the Athenians and the Athenians to the Lacedaemonians.

From Thucydides, Book V. 14; 17, translated by Benjamin Jowett.

DOCUMENT IX

MONARCHY, ARISTOCRACY, DEMOCRACY

The conclusion is evident: that governments, which have a regard to the common interest, are constituted in accordance with strict principles of justice, and are therefore true forms; but those which regard only the interest of the rulers are all defective and perverted forms, for they are despotic, whereas a state is a community of freemen....

...The true forms of government, therefore, are those in which the one, or the few, or the many, govern with a view to the common interest; but governments which rule with a view to the private interest, whether of the one, or of the few, or of the many, are perversions. For citizens, if they are truly citizens, ought to participate in the advantages of a state. Of forms of government in which one rules, we call that which regards the common interests, kingship or royalty; that in which more than one, but not many, rule aristocracy (the rule of the best); and it is so called, either because the rulers are the best men, or because they have at heart the best interests of the state and of the citizens. But when the citizens at large administer the state for the common interest, the government is called by the generic name - a constitution.

Of the above-mentioned forms, the perversions are as follows: - of royalty, tyranny; of aristocracy, oligarchy; of constitutional government, democracy. For tyranny is a kind of monarchy which has in view the interest of the monarch only; oligarchy has in view the interest of the wealthy; democracy, of the needy; none of them the common good of all.

From Aristotle, Politics III, translated by Benjamin Jowett.

DOCUMENT X

THE HIPPOCRATIC OATH

...The regimen I adopt shall be for the benefit of my patients according to my ability and judgement, and not for their hurt or any wrong. I will give no deadly drug to any, though it be asked of me,

nor will I counsel such, and especially I will not aid a woman to procure abortion. Whatsoever house I enter, there will I go for the benefit of the sick, refraining from all wrongdoing and corruption.... Whatsoever things I see or hear concerning the life of men, in my attendance on the sick or even apart therefrom, which ought not to be noised abroad, I will keep silence thereon, counting such things to be sacred secrets.

From Encyclopaedia Britannica, Vol. 15, p. 199.

DOCUMENT XI

ATHENIANS BEWARE!

...But if any among you, Athenians, deem Philip hard to be conquered, looking at the magnitude of his existing power, and the loss by us of all our strongholds, they reason rightly, but should reflect, that once we held Pydna and Potidaea and Methone and all the region round about as our own, and many of the nations now leagued with him were independent and free, and preferred our friendship to his. Had Philip then taken it into his head, that it was difficult to contend with Athens, when she had so many fortresses to infest his country, and he was destitute of allies, nothing that he has accomplished would he have undertaken, and never would he have acquired so large a dominion. But he saw well, Athenians, that all these places are the open prizes of war, that the possessions of the absent naturally belong to the present, those of the remiss to them that will venture and toil. Acting on such principle, he has won everything and keeps it, either by way of conquest, or by friendly attachment and alliance; for all men will side with and respect those whom they see prepared and willing to make proper exertion. If you, Athenians, will adopt this principle now, though you did not before, and every man, where he can and ought to give his service to the state, be ready to give it without excuse, the wealthy to contribute, the able-bodied to enlist; in a word, plainly, if you will become your own masters, and cease each expecting to do nothing himself, while his neighbour does everything for him, you shall then with heaven's permission recover your own, and get back what has been frittered away, and chastise Philip. Do not imagine that his empire is everlastingly secured to him as a god. There are who hate and fear and envy him, Athenians, even among those that seem most friendly; and all feelings that are in other men belong, we may assume, to his confederates. But now they are all cowed, having no refuge through your tardiness and indolence, which I say you must abandon forthwith. For you see, Athenians, the case, to what pitch of arrogance the man has advanced who leaves you not even the choice of action or inaction, but threatens and uses (they say)

outrageous language, and, unable to rest in possession of his conquests, continually widens their circle, and, whilst we dally and delay, throws his net all around us. When then, Athenians, when will you act as becomes you? In what event? In that of necessity, I suppose. And how should we regard the events happening now? Methinks, to freemen the strongest necessity is the disgrace of their condition. Or tell me, do you like walking about and asking one another: - Is there any news? Why, could there be greater news than a man of Makedonia subduing Athenians, and directing the affairs of Greece? Is Philip dead? No, but he is sick. And what matters it to you? Should anything befall this man, you will soon create another Philip, if you attend to business thus. For even he has been exalted not so much by his own strength as by our negligence....

From Demosthenes, Philippic I, translated by C.R. Kennedy.

DOCUMENT XII

ALEXANDER THE GREAT

And now with the flower of his army he marched into Hyrcania, where he saw a large bay of an open sea, apparently not much less than the Euxine, with water, however, sweeter than that of other seas, but could learn nothing of certainty concerning it, further than that in all probability it seemed to him to be an arm issuing from the lake of Maeotis. However, the naturalists were better informed of the truth, and had given an account of it many years before Alexander's expedition; that of four gulfs which out of the main sea enter into the continent, this, known indifferently as the Caspian and as the Hyrcanian Sea, is the most northern. Here the barbarians, unexpectedly meeting with those who led Bucephalas, took them prisoners, and carried the horse away with them, at which Alexander was so much vexed that he sent an herald to let them know he would put them all to the sword, men, women, and children, without mercy, if they did not restore him. But on their doing so, and at the same time surrendering their cities into his hands, he not only treated them kindly, but also paid a ransom for his horse to those who took him.

From hence he marched into Parthia, where not having much to do, he first put on the barbaric dress, perhaps with the view of making the work of civilizing them easier, as nothing gains more upon men than a conformity to their fashions and customs. Or it may have been as a first trial, whether the Macedonians might be brought to adore him, as the Persians did their kings, by accustoming them by little and little to bear with the alteration of his rule and course of life in other things. However, he followed not the Median fashion, which was altogether foreign and uncouth, and adopted neither the trousers nor the

sleeved vest, nor the tiara for the head, but taking a middle way between the Persian mode and the Macedonian, so contrived his habit that it was not so flaunting as the one, and yet more pompous and magnificent than the other. At first he wore this habit only when he conversed with the barbarians, or within doors, among his intimate friends and companions, but afterwards he appeared in it abroad, when he rode out, and at public audiences, a sight which the Macedonians beheld with grief; but they so respected his other virtues and good qualities, that they felt it reasonable in some things to gratify his fancies and his passion of glory, in pursuit of which he hazarded himself so far, that, besides his other adventures, he had but lately been wounded in the leg by an arrow, which had so shattered the shank-bone that splinters were taken out....

From Plutarch, The Lives of the Noble Romans and Greeks, translated by John Dryden and revised by Arthur Hugh Clough.

APPENDIX C

SOCIAL STUDIES ACHIEVEMENT TEST

ACHIEVEMENT TEST

SOCIAL STUDIES 10 (GREECE)

Time: One Period

General Directions:

Your exam consists of 50 questions. Read the questions carefully and make your choice in pencil on an I.B.M. answer sheet provided. Indicate your choice for the correct answer by blackening the space under the letter which corresponds to the best answer for each item.

Do not spend too much time on one item. Your score will be the number of correct answers you mark on the answer sheet.

MARK ONLY ONE answer to each question. Do not put any mark on the Test Booklet.

EXAMPLE

Test Booklet:

1. Athens was situated on a rocky formation known as
 - A. the Pnyx
 - B. Mount Olympus
 - C. the Acropolis
 - D. Mount Tagetus

Answer Sheet:

1. a. b. c. d.

1. The ancient Greek cities came into being primarily because of the citizens' need for
 - A. trade
 - B. defence
 - C. industry
 - D. education
2. Spartan education did not stress
 - A. the liberal arts
 - B. obedience
 - C. stoicism
 - D. resourcefulness
3. The period immediately following the Persian Wars is known in Greece as
 - A. the Reconstruction
 - B. the Age of Tyrants
 - C. the Golden Age
 - D. the Period of Spartan Supremacy
4. "Rule of the few" is called
 - A. autocracy
 - B. oligarchy
 - C. hierarchy
 - D. dictatorship
5. Minoan civilization was centered on the Island of
 - A. Cyprus
 - B. Crete
 - C. Cyclades
 - D. Corsica
6. The family system of the Greeks can be described as being
 - A. Patriarchal
 - B. Matriarchal
 - C. Fratricidal
 - D. Matrilineal

7. Which people invaded Greece and thus ended the Minoan-Mycean civilization?
 - A. Trojans
 - B. Achaeans
 - C. Phoenicians
 - D. Dorians
8. The Period from 431 to 404 B.C. in Greece is known for the
 - A. Conquest of the East by Alexander
 - B. Struggle between Athens and Sparta
 - C. Struggle between the Greeks and the Persians
 - D. Struggle between the Greeks and the Trojans
9. The Peloponnesian wars among the Greek city-States were the wars between
 - A. Commercial cities and discontented city-States
 - B. Commercial and Political rival city-States
 - C. Commercial city-States and their colonies
 - D. Democracy and despotism
10. Historical evidence for the civilizations that existed prior to the development of the classical Greek civilization were
 - A. The excavations of Evans at Troy in 1870
 - B. The excavations of rock-cut tombs by Evans at Mycenae
 - C. The excavations of Schliemann at the Palace of Cnossus
 - D. The excavations of Schliemann at Mycenae
11. Pericles was a radical democrat. What does this mean in ordinary language?
 - A. He believed the old ways were bad, and wished to substitute a "peoples democracy" in place of the old system.
 - B. He was a man with unusual new ideas, and believed in the right of the individual citizen to take part in government.
 - C. As a revolutionary, he felt that ordinary democracy should be replaced by a system of archons.
 - D. He felt that democracy, as it then existed, should remain exactly the same.

12. The Confederacy of Delos was theoretically an association of equal Greek states. How did it actually turn out?
- A. All states were equal to each other.
 - B. Corinth became dominant, the others became satellites.
 - C. Sparta and Athens turned the league into an empire.
 - D. Athens became dominant, the others became satellites.
13. The main reason the Greeks were able to defeat the Persians was
- A. Superior tactics
 - B. Superior numbers
 - C. Individual bravery
 - D. Better weapons
14. "Zeus overwhelmed the human race with a flood, from which one man, Deucalion, and his wife, Pyrrha, alone were saved in a chest that came to rest on Mt. Parnassus."
This Greek story is similar to that of the Biblical Noah and the Flood. What was the Hebrew God which corresponds to Zeus?
- A. Jehovah
 - B. Osiris
 - C. Marduk
 - D. Baal
15. Ancient Troy was located in Phrygia in Asia Minor. Today the area is part of which country?
- A. Greece
 - B. Jordan
 - C. Turkey
 - D. Syria
16. The significance of the Battle of Salamis was
- A. a Greek victory and the turning point of the war
 - B. a Persian victory and the turning point of the war
 - C. a Greek victory that forced Darius to retreat until the following year
 - D. a Persian victory leading to the formation of the Hellenic League against the Persians

17. "State is to be ruled by 'philosopher kings'. For them and for the warrior class, there is a communism of property and equality of sexes. Men and women are to have an equal education and equal rights and duties. Education is to be state-controlled and there is to be a rigid censorship - for Plato has decided what is good for women, men and children to know and what is not. Foreign travel by people under forty is forbidden."

Read the above paragraph carefully and choose the most appropriate theme that Plato advocates.

- A. The right of political freedom of an individual
 - B. The establishment of a totalitarian state
 - C. The demerits of a foreign travel by the young people
 - D. The right of equal education to both sexes
18. The Greeks often said their land was "Divided by mountain, united by sea." What effect would this geographical arrangement likely produce on Greek political development?
- A. Growth of a democracy and complete independence of each city.
 - B. Independent cities would rise but each connected by trade.
 - C. Development of kingdoms with a joint assembly.
 - D. Formation of a united nation.
19. The Mediterranean in effect became a Greek lake. When and why did this first become a fact?
- A. After the defeat of Persia, because no other civilization was able to compete militarily with Greece.
 - B. During the age of Tyrants, when money was available for construction of many ships for trade.
 - C. During the Golden Age, because Greek colonial and economic influences were greatly extended.
 - D. After Alexander's empire, because the Greek empire was at its greatest extent.
20. During the wars with the Persians, most of the Greek states had united to fight. Yet when peace came, they returned to being antagonistic to each other. Why?
- A. They had eliminated their common enemy and each Greek state now realized they had their own interests.
 - B. Sparta's culture was so different from the others that it was impossible for a friendly union to continue.

- C. The wars had destroyed many Greek cities, and there were struggles for control of these areas.
 - D. Herodotus decided to make Athens a great city, and led her out of the alliance to form a separate League.
21. What factors likely caused the Greeks to feel it necessary to expand their empire outside the Aegean area?
- A. Lack of trade, lack of raw materials.
 - B. Religious persecution, lack of land.
 - C. Poor land, lack of raw materials.
 - D. Constant war with other nations.
22. The Minoans and the Sumerians both wrote on clay tablets. From this information, can one deduce that the Minoan culture was directly related to Sumerian culture?
- A. No, because writing is but a very small part of the total culture.
 - B. No, because the great distance between them means their writing forms evolved separately.
 - C. Yes, because both were trading nations, a common writing was developed for ease of communication.
 - D. Yes, because other nations between the Minoans and the Sumerians had similar writing styles.
23. Is the term "Golden Age" more descriptive of Athens or of Sparta?
- A. Athens, because it was the center of religious thought, while Sparta had no religion.
 - B. Athens, because Sparta had been defeated in the war with Corinth and this gave Athens a head start.
 - C. It is descriptive of both states, because both increased their empires and influence.
 - D. Athens, because it experienced a growth of trade and culture, while Sparta did not.
24. Solon created a four-class system of citizenship in Athens, which was based on wealth, yet all were free men. What logical result would this reform have?
- A. The wealthy were the only ones to receive any privileges.
 - B. Responsibility and privileges were also based on wealth.
 - C. Revolution broke out because the lower classes were not accustomed to power.
 - D. Sparta followed Athens' lead, and adopted a similar system.

Structures and theories of Hellenistic era of Greece were a composite product of Stoic, Cynic and Epicurean influences.

The statements below are either supportive of or irrelevant to the above underlined sentence. Mark

- A. if the statement relates to Epicurean influence
- B. if the statement relates to Stoic influence
- C. if the statement relates to Cynic influence
- D. if the statement relates to all of the three influences
- E. if the statement relates to none of the three influences

- 25. The virtuous man is the man who has the fewest wants.
- 26. Virtue is to be attained by indifference to pleasure, pain, in fact to all emotions.
- 27. Pleasure is the road to happiness and highest pleasure is the pleasure of mind.
- 28. Aggression is the only effective remedy for all evils.

Whereas Athens, during Periclean democracy, was ruled by one level of government, the governmental responsibilities in Canada today fall under the jurisdiction of the following levels of government:

- A. Federal
- B. Provincial
- C. Local
- D. Federal and Provincial
- E. Local and Provincial

Put the respective letters against the following statement matching them to the above levels of government. You may use the same letter more than once.

Example: Section 93 of B.N.A. Act of 1867 needs amendment
(Ans. D)

- 29. Alberta needs another school for the deaf.
- 30. Trade treaty is to be negotiated with the United States.
- 31. Agricultural program is to be accelerated all over Canada.

32. A bye-law needs an amendment.
33. The Athenians ostracized the tyrants who did not rule according to the wishes of the people. To achieve the same object today in Canada, which of the following steps will be most appropriate for the parliament to take according to the set convention?
- A. Introduction of a 'closure'
 - B. Recall of the Prime Minister through referendum
 - C. Appeal to the Governor General
 - D. Passage of 'no confidence'
 - E. Adjournment of the session
34. The Athenian Tribal Demes was similar to which of the following bodies?
- A. Senate of Canada
 - B. Legislature of Alberta
 - C. Municipal government
 - D. Parliament of Canada
35. Which of the following does not belong in the group?
- A. Aristotle
 - B. Plato
 - C. Alcibiades
 - D. Socrates
36. The following are some statements regarding the city-States of Greece:
- A. Six hundred persons were elected annually to work as jurymen.
 - B. Some officials were chosen by lots using white and black beans.
 - C. They had two kings.
 - D. Their assembly of twenty-eight old men was appointed for life.
 - E. Their government was run by elected magistrates.
 - F. They voted by shout in their assembly. The loudest won.

Which of the following combination of statements belongs to Sparta?

- A. d, c, & e
- B. a, b, & c

- C. d,e,& f
- D. c,d,& f

37. Greeks and Phoenicians are members of the Indo-European language family. Keeping in mind that the Indo-European languages spread from the Eastern Mediterranean outwards, which of the following groups use also Indo-European languages?

- A. Chinese, Hebrew and Arabic
- B. Russian, Ancient Egyptian and Turkish
- C. English, French and Swahili
- D. Latin, Spanish and Sanskrit

Facts:

"In Spartan education system, the able-bodied boys, at the age of seven, were taken out of their homes and sent to military camps where they got the toughest military training until the age of eighteen in order to make them the strongest soldiers of the Bulkan Peninsula."

Hypothesis: The Spartans believed in "the survival of the fittest."

Consider the preceding hypothesis in the light of the above facts. Following conclusions have been drawn regarding the evolution of Spartan education system.

Mark each of the statement

- A. if it is the most logical conclusion
- B. if it is partially logical
- C. if it is totally irrelevant

38. Spartan philosophy considered women a debilitating (weakening) element of the society and the Spartans wanted to keep their young boys away from them.

39. Hostility of Athens toward Sparta forced this system upon the Spartans.

40. The Spartan ideology believed in militancy.

41. The historian George Grote wrote:

"I begin the real history of Greece with the first recorded Olympiad ... for the truth is that historical records properly so-called do not begin until after this date."

Sir Arthur Evans wrote that he discovered:

"Whole deposits of clay tablets, analogous to the Babylonians but with inscriptions in the prehistoric script of Crete, I must have about seven hundred pieces by now."

Read carefully the preceding statements, and decide which of the following alternatives is best founded on them:

- A. The findings of Evans prove Grote is wrong.
- B. There need be no conflict, it depends on what Grote accepts as "historical evidence properly so-called."
- C. The findings of Evans prove Grote right.
- D. Greek history now begins with the Minoans.

42. Which of the following statements is inconsistent with the rest?

- A. No people of the past better repay study than the Ancient Greeks, particularly because of their philosophy.
- B. The Greek story is one of un-ending progress in every generation, in every phase of living.
- C. The Achaeans accepted a lot into their civilization. The Dorians were their cousins. During their period of Supremacy, the art of writing was lost.
- D. Under the teachership of Pericles, Greek culture reached its height.

43. Introduction of the Periclean democracy in Canada of today would create some major administrative and political problems. Which of the following measures will provide the logical solution to these problems?

- A. Give the right of vote to women
- B. Introduce the system of representative assemblies
- C. Create independent Judiciary and autocratic Executive
- D. A and B above
- E. B and C above

44. Periclean Greece was a democratic system of government; in some ways similar to the Canadian system. Which system was more democratic in the strict sense of the word "democracy?"

- A. The Athenian system, for everyone in the state had the right to be a member in the assembly.
- B. The Athenian system, for each male citizen could take part directly in the formation of government policy.

- C. The Canadian system, because the right to vote is guaranteed to each citizen.
- D. The Canadian system, because the formation of political parties gives each citizen a clear choice.

Decree of 423 B.C. in Athens, tried to make the currency uniform. The Decree stated that all citizens should hand over their foreign silver currency to the Athenian Treasury whenever they liked and the State was to exchange it with the equivalent native currency. "If anyone in the city should strike silver money and not use the money or weights or measures of the Athenians, but use foreign money and weights and measures, the penalty is to be that laid down in the earlier decree."

Hypothesis: The State was authorized to pass the decree asking citizens to return the foreign currency.

In the light of the above facts and hypothesis, mark each of the following statements:

- A. - if it explains why your conclusion is logical
 - B. - if it does not explain why your conclusion is logical
 - C. - the statement about which you cannot decide
45. The citizens would argue indirectly (if foreigners could use the foreign currency in Athens, why couldn't they?)
46. No one who was in the poor class should be asked to return the money.
47. The State was a supreme body.
48. Evaluate the following statement:
- "Fighting among nations of the earth would stop if we were threatened by an invasion from another planet."
- A. There is evidence in history to support this statement.
 - B. There is no evidence to support it.
 - C. This is a true statement.
 - D. It is a false statement.
49. Respond to the following statement:

"A Greek historian says, Ancient Greece is the first 'thinking

civilization' before our own because people looked at life in much the same way as we do."

- A. It is meaningless because it is not clear what he means by a "thinking civilization."
- B. We can accept it because he is qualified to make such conclusions.
- C. It contains logical reasoning.
- D. It is completely false.

50. Suppose that the purchasing power of the Canadian dollar is low and the following courses are suggested to the government to counteract inflation. Which action would be most justified?

- A. Discourage imports
- B. Put more tariffs on imports
- C. Squeeze the volume of the currency
- D. Subsidize the industry

APPENDIX D

DETAILED ITEM ANALYSIS STATISTICS FOR
THE SOCIAL STUDIES ACHIEVEMENT
POST-TEST

DETAILED ITEM ANALYSIS STATISTICS FOR THE
SOCIAL STUDIES ACHIEVEMENT POST-TEST

Item number	Experimental group N=60			Control group N=61		
	Difficulty	Biserial correlation	Reliability index	Difficulty	Biserial correlation	Reliability index
1	0.63	0.22	0.11	0.66	0.46	0.22
2	0.68	0.66	0.31	0.67	0.55	0.26
3	0.63	0.37	0.18	0.54	0.49	0.25
4	0.82	0.41	0.16	0.82	0.67	0.26
5	0.87	0.20	0.07	0.95	0.78	0.17
6	0.82	0.47	0.18	0.75	0.52	0.23
7	0.70	0.30	0.14	0.41	0.54	0.27
8	0.52	0.50	0.25	0.39	0.31	0.15
9	0.27	0.26	0.16	0.12	0.54	0.17
10	0.42	0.04	0.02	0.18	0.52	0.20
11	0.68	0.33	0.15	0.61	0.21	0.11
12	0.68	0.62	0.29	0.67	0.76	0.36
13	0.52	0.35	0.17	0.53	0.32	0.16
14	0.77	0.57	0.24	0.64	0.68	0.39
15	0.53	0.28	0.14	0.49	0.53	0.26
16	0.60	0.38	0.19	0.54	0.51	0.26
17	0.55	0.38	0.19	0.49	0.57	0.28
18	0.62	0.26	0.12	0.53	0.39	0.20
19	0.50	0.08	0.04	0.30	0.34	0.15
20	0.67	0.64	0.30	0.51	0.38	0.19
21	0.62	0.52	0.25	0.48	0.56	0.28
22	0.48	0.09	0.04	0.27	0.33	0.14
23	0.68	0.38	0.18	0.57	0.72	0.36
24	0.73	0.21	0.09	0.61	0.47	0.23
25	0.25	0.37	0.16	0.28	0.27	0.12
26	0.62	0.59	0.29	0.20	-0.04	-0.02
27	0.68	0.43	0.20	0.34	0.21	0.10
28	0.47	0.37	0.19	0.26	0.30	0.13
29	0.33	0.00	0.00	0.16	-0.70	-0.26
30	0.87	0.39	0.13	0.82	0.48	0.19
31	0.65	0.51	0.24	0.67	0.59	0.28
32	0.70	0.14	0.07	0.49	0.57	0.28
33	0.48	0.61	0.30	0.44	0.70	0.35
34	0.40	0.18	0.09	0.36	0.47	0.23
35	0.80	0.57	0.23	0.64	0.43	0.20
36	0.67	0.50	0.24	0.51	0.41	0.21
37	0.40	0.33	0.16	0.20	0.20	0.08

continued

Item number	Experimental group N 60			Control group N 61		
	Difficulty	Biserial correlation	Reliability index	Difficulty	Biserial correlation	Reliability index
38	0.40	-0.14	-0.07	0.25	0.00	0.00
39	0.48	-0.31	-0.16	0.07	-0.11	-0.03
40	0.53	-0.37	-0.18	0.18	-0.23	-0.09
41	0.85	0.67	0.24	0.25	0.16	0.07
42	0.82	0.56	0.22	0.30	0.21	0.10
43	0.75	0.12	0.05	0.18	0.13	0.05
44	0.42	0.20	0.10	0.05	0.06	0.01
45	0.57	0.16	0.06	0.10	-0.02	-0.01
46	0.60	0.36	0.18	0.49	0.17	0.09
47	0.82	-0.31	0.12	0.30	0.38	0.17
48	0.90	0.57	0.17	0.25	0.72	0.31
49	0.67	0.46	0.22	0.13	-0.04	-0.01
50	0.62	0.41	0.20	0.26	0.40	0.18

B29941